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NEW YORK
BOTANICAL GARDEN



BULLETIN OF THE

American Iris Society

NUMBER 192

JANUARY 1969



BLUE CAPERS
MDB
A. Brown '67



RITZ
SDB
Schreiners '68



TULARE
BB
Hamblen '60



SKY CAPER
MDB
Warburton '63



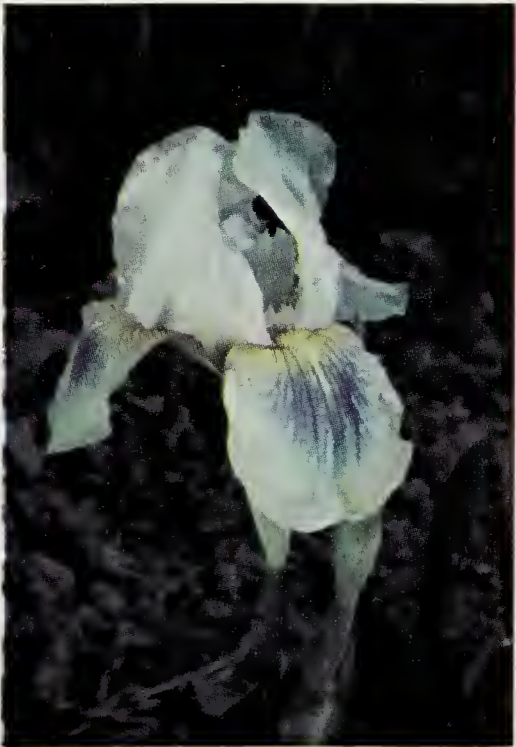
LIGHT CAVALRY
IB
B. Jones '67



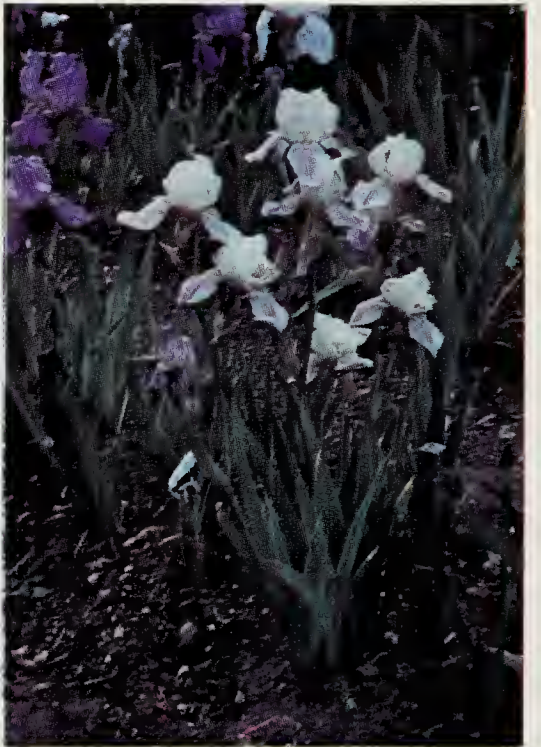
BOTANY BAY
BB
B. Jones '67



CHERRY GARDEN
SDB
B. Jones '67



TAMINO
IB
Schreiners '64



ICE FAIRY
MTB
Witt '66

THE BULLETIN

of the

AMERICAN IRIS SOCIETY

NO. 192

JANUARY 1969

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The *Bulletin* is published quarterly by The American Iris Society. Publishing office 2315 Tower Grove Blvd., St. Louis, Mo. 63110. Second-class postage paid at St. Louis, Mo., and at additional mailing offices.

Communications regarding membership in the Society, advertising, and other items of business should be addressed to Mr. Clifford W. Benson, Executive Secretary, 2315 Tower Grove Blvd., St. Louis, Mo. 63110.

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All copy due in editor's office forty-five days before first of the month of publication.

The *Bulletin* is printed by The Livestock Press, Inc., 2830 "O" Street, Omaha, Nebraska 68107.

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The names of societies given Affiliate status will be published in the *AIS Bulletin*.

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Articles dealing with the history of irises and The American Iris Society.

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Don't throw away these iris treasures. Send them to:

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From The President's Desk

As I write this, five days after the Chicago Board meeting, I am still somewhat startled by the suddenness of being catapulted from the second vice-presidency all the way to the presidency. It came about quite simply: When nominations were declared in order, Art Nelson said: "Mr. President, I know the First Vice-President is normally nominated for President. But I find the problems of The Bulletin, of Registration, and of Awards more intriguing and more challenging than the presidency. I, therefore, nominate Bill Bledsoe to be President of AIS!" I had scarcely left the room before it was done!

And so, it is with deep feelings of pride and of humility that I compose my first message as President. I take pride in the fact that I have been so signally honored, but I am humble in the realization of the important responsibilities of the office. I assure you that I shall retain that humility and shall keep an open mind as I strive to lead this organization in accordance with the highest traditions established by those outstanding presidents who have preceded me.

As we start this forty-ninth year of our Society's existence, we face some serious problems, but they are not insurmountable obstacles. We can and will resolve them. The Board of Directors and I are keenly aware that we can only point the way and urge you to go with us in that direction. But the success or failure of any proposed program rests squarely in the hands of our members. I pledge you that we will make certain, to the best of our abilities, that the programs we recommend will be unselfishly designed for the betterment of AIS, both in growth and in effectiveness.

Perhaps our most serious problem is an economic one. Spiraling costs and increased expenses have not, during the past two years, been met by adequate income. We have, therefore, operated at a deficit for those two years, and this year of 1969 is expected to show an even more substantial operating deficit. The answer is obvious: We must obtain more members, increase membership dues, or cut back on expenditures—perhaps some of all three. A competent committee is making an in-depth study of all facets of this problem, and we expect to have the benefit of its recommendations at our Milwaukee meeting.

The Judges Training Program is now implemented and is operating smoothly in most regions. The principles of Iris Appreciation are included in these training sessions, so that non-judges are also finding them interesting and informative. Such meetings attract increasingly larger numbers of attendees, and the resultant up-grading of judges' techniques and of growers' discriminative tastes is quite gratifying.

The AIS Youth Program, with Larry Harder now at the helm, is rapidly taking shape. Interested members, both youth and adult, are requested to write Larry and get involved in this important movement.

I expect to give before the membership in Milwaukee in June a "State of the Society" talk. I hope that a large number of our members will be present for this discussion and for the annual convention.

If you have a suggestion for the betterment of AIS, I would like to hear

from you. In fact, I would just like to hear from you—you don't need to have a reason for writing!

William T. Bledsoe

And That's What I Like About The North!

Lura B. Roach

(Reprint from Region 14 Bulletin, Vol. 12, No. 2)

It is with pride I say I'm a native daughter. This state is the best and I love every bit of it. Though I live in the southern portion now, there was a time when I called Berkeley home. It was with great anticipation that I boarded a plane in Los Angeles bound for Oakland and the national convention.

The wooded hills around Berkeley were just as I remembered them. The weather was perfect and the iris bloom exceptionally good. Before I tell you of some of the fine specimens seen, I want to commend Region 14 and the Convention Committee. Whoever thought up the idea of having sanitary facilities aboard the buses deserves a halo. The time-consuming long lines seen at previous conventions were conspicuous by their absence. The iris planting at the Claremont was an innovation I hope to see continued at all future conventions. This is the first convention where we were really able to see, study and evaluate the exhibited varieties. We saw them in the morning, we saw them at night, and during the four days of the convention we really learned how they perform. This is something you can't do while on a trek.

FROSTED VELVET ADORNED

The white irises are always in a class by themselves. I was particularly pleased to see FLIGHT OF ANGELS doing so well in the convention gardens. It is a vigorous plant with healthy blue-green foliage. The 40" stalks have three well-spaced candelabra branches plus the terminal. All bud sockets are multiple, thus assuring a long period of bloom with never any bunching. The large well-formed flowers are snowy white frosted velvet adorned with a generous yellow tipped white beard. The domed standards and flaring falls are heavily ruffled and fluted. Truly this is a superior white in an already crowded field, and Collie Terrell can be very proud of his 1968 introduction.

FIRST SNOW (Sexton '66) is a beautiful green tinged white. The 40" stalks have three branches plus the terminal, but there are only two buds per socket. These are well timed. The standards are conical and swirled when the flower first opens. As the flower ages they become more domed, but do not collapse until after the falls have begun to "whizzle." The flaring falls have texture veining and seem to be sprinkled with diamond dust. Hafts are wide and clean. It has a bushy white beard, heavy substance and is well proportioned. It takes the heat much better than I do.

In the Claremont garden, I was much taken with CLOUD CREST (B. Jones '68). Here is a nicely formed white with a heavy orange-red beard. The ruffled white standards do have a touch of lavender in them as they open, but it bleaches. The wide ruffled and laced falls are a snowy white and I didn't see that distracting blush of yellow showing at the hafts that mars so many in this class. The branching, bud count and height were all acceptable.

SUCH WISHFUL THINKING

The reverse amoena class has, for the most part, been one of wishful thinking on the part of the hybridizers. OCEAN SHORES (Plough '67) is the exception. As the contrast was more pronounced in my garden than noted at the convention, I'll describe it as seen in Los Angeles. It is a particularly vigorous plant. Though only first year, there were multiple 34" bloomstalks, each having three well-placed branches plus the terminal. Increase was spectacular. The domed ruffled standards are primarily flax blue with a concentrated wash at the base and extending up the midrib. The wide flaring ruffled falls are like white slipper satin, with a blush of the deeper tone toward the heart of the flower. Even the stigmatic lip is lobelia blue. It is utterly charming.

MEDITATE (Ghio '67) is a lovely yet hard to describe off-white. Its coloring sort of reminds me of buttermilk. In the heart of the flower there is a bluish cast and yet there is a warm quality about it too. The domed ruffled standards complement the deeply fluted flaring falls. All of the parts are quite wide, giving the impression of balls of fluff on a well-branched show stalk. Foliage and vigor of this plant were particularly good.

WHERE DOES THE FOLIAGE START?

There has been much improvement in the quest for green. RAIN FOREST (Plough '66) is a smoky green-and-lavender blend that is very attractive. Though it doesn't have show-type stalks, it certainly causes plenty of comment. SINGING PINES, his '67 introduction, is a much clearer color, though there is some green veining at the hafts. The slightly ruffled standards are a tan-chartreuse. The falls are slightly darker and carry a mustard beard. The stalk has two branches plus terminal.

OASIS ('67) was the first of the Ghio "greens" to give us bountiful bloom in Southern California. Though they are only medium size, the flowers are nicely spaced on well-branched 32" stalks. But isn't it sad to be superseded after only one year by WILLOW WISP (Ghio '68)? This antique gold has a striking flush of turquoise just beneath the self-toned beard. WW is a larger flower with domed standards and semiflaring falls and lots of ruffles. Branching, height and plant habit are good. Coming up is Ghio 64-35F, an OASIS seedling, and this is the greenest of them all. We charted it and found it to match Wilson 763/2. This citron green has remarkable clarity of color. The flower is large and globular, with light ruffling to add to its overall beauty. The strong blue-green foliage complements the beautifully branched 38" stalk.

PACIFIC SANDS (Plough '67) is one you either like or dislike intensely. Its color is a muted beige with a rosy underglow. At first I passed it as a nothing, but for some reason I kept going back and it grows and grows

on one. You realize that here is one that is truly different. Because we resent change, the old and familiar makes us more comfortable. So with PACIFIC SANDS; as I became more familiar, I realized that this is a beautiful, wide, ruffled, fully formed iris sporting a tangerine beard with a light blue tip. It has good height and acceptable branching.

THE SKY IS CHALLENGED

SEASIDE (O. Brown '67) is an iris that will put up more than one bloomstalk on a one-year plant and still give excellent increase. This is a "Queen of Show" type of iris. The 38" stalks have four well-spaced branches plus a spur and the terminal. The huge well-spaced flowers of light blue have great width and ruffling. Its superior substance makes for long-lasting bloom.

BABBLING BROOK (Keppel '66) approaches spectrum blue. This is a lovely thing with classic form and ruffling. It was outstanding in all the gardens.

Our regional purchase committee would have liked to have had Babson's SHIPSHAPE released. This tall well-branched medium blue is a very glorified PACIFIC PANORAMA, and has simply everything going for it. It is being held for 1969 introduction.

THE OCEAN DEEP BECKONS

LONELY SEA (Tompkins '65) had fine height and vigor. This is a violet-blue with three candelabra type branches plus terminal. The flaring, ruffled horizontal falls have very smooth hafts. The standards, though open, are erect and quite ruffled. The beard is blue and wide. Texture is that of leather and the substance is of the best.

ROYAL HERITAGE (Luihn '68) is a beautiful shade of royal purple. The flowers themselves could not be faulted, but I thought the branching was a little too much like the spurias.

BLUEBEARD'S CASTLE (Plough '67) is a vibrant bluish purple with an exciting blue beard. The well-formed flowers are borne on well-branched 40" stalks. The plant is vigorous and quite generous with bloom.

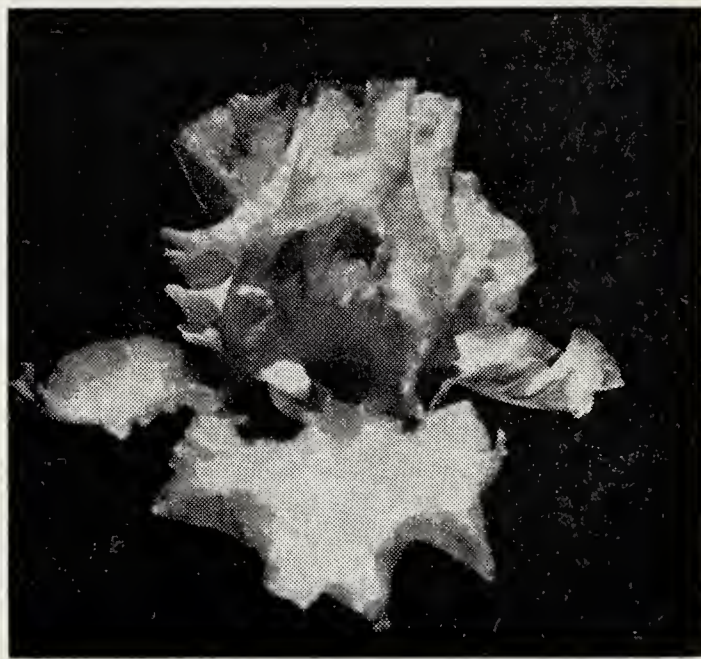
When we first bloomed MYSTIC MOOD (Ghio '67) we were disappointed. Which only goes to show that one shouldn't place too much confidence in the bloom of a one-year plant. This year it has been outstanding, not only in my garden, but everywhere I saw it. This neglecta is done in two tones of lavender-violet. It has good height, excellent candelabra branching and large, ruffled, perfectly formed blooms that last for days and days.

THE CALL OF THE WILD

Now for some odd and unusual ones. CAMBODIA (Babson '66) is one that will put up more than one bloomstalk on a well-grown first year plant. The 38" stalk has three well-spaced branches plus terminal. The bud sockets contain three well-timed buds. The erect ruffled standards are a shade deeper and darker than antique gold and they do touch at the tip. The midrib has a sharp violet flush. The flaring ruffled falls are a muted lavender-violet, edged with the same color as the standards. Hafts are wide and are blushed brown. Beard is a deep violet dusted with gold. The texture is that of satin and over all is a lovely sparkle. The substance

is heavy and the flowers hold well without fading.

PUNCHLINE (Plough '68) . . . Gordon really made a "boo-boo" in describing this in his catalogue. Had he been accurate, he probably would have sold out before the convention started. **PUNCHLINE** has an allover metallic quality that makes it seem unreal. The standards, which give the impression of being domed, are copper-brown with a metallic lavender flush at the base and extending up the midrib. The falls are metallic lavender with a 3/8" copper-brown edging. At the hafts is a blush of purest gold. The "smithy" even put texture veining in the very ruffled flaring falls. Height was 35" and branching was fine. This I have to have, for the substance is heavy and the flower holds well, and furthermore you'll never mistake it for another.



PUNCHLINE
(Plough '68)

(Photos by Keppel)

LOVE LETTERS
(Keppel '68)

GALA MADRID (Peterson '68) we thought outstanding. There is really no need to describe it; just look at the picture of **MILESTONE** in Plough's catalogue, and it don't take the red evening sun to get this effect.

ORENDA (Gaulter '68) is a much improved **SUTTER'S FALLS**, and these falls don't droop. Height is about 36". There were two branches plus a spur and a terminal, and all parts of the flower are wide, very ruffled and fluted. Plant vigor was exceptional.

GOLD IN THEM THERE HILLS

COUNTY FAIR (Corlew '66) is a gorgeous full yellow self with ruffling and even a bit of lace at the tip of the standards and the bottom of the falls. Ordinarily I don't care for lace on a full toned iris, but here the depth of color is not affected as the color saturation seems to be more intense at the petal margin. There is a slightly lighter area around the orange-yellow beard. The hafts are clean and the color more intense. The well-timed multi bud-sockets are well spaced, and there are three branches plus terminal. The whole flower shimmers like taffeta. Substance is heavy and flowers hold well for four days.

BRIGHT SHIELD (O. Brown '68) made a fantastic clump in my home garden. On a two-year clump there were eighteen bloomstalks and there was still increase to be returned. Each of these stalks could have taken a

blue ribbon, for branching, height and size of blossom were exceptional. A wide deep golden beard adds to the beauty. Substance is excellent and the flowers hold for days and days.

RETA FRY (Terrell '66) is sort of reminiscent of GOLDEN GARLAND, but Oh! so very much improved. The smooth deep saffron standards swirl in a conical fashion. The ruffled arched and flaring falls have a white spot pattern. The underside of the fall and the upper border are the same color tone as the standards. There is a slight pattern about the orange beard. The texture is waxy, but it doesn't melt, not even in the Wasco heat.

THEY SHOUT AT YOU!

FLAMING STAR (Plough '67) is that shade of orange they use on bumper stickers. It shouted at you clear across the garden. The standards are erect and do not close, but the fact that the lateral margins flare backward in Southern California gives the impression that they are domed. On a one-year plant it did not come up as tall as I expected and the branching . . . well, you couldn't possibly have good branching on a stalk 18" tall. But the color . . . we just wouldn't be without it, and possibly when it becomes acclimated it will be taller.

ORAGLOW (Julander '68) . . . this may be listed in your notes as Julander J-65-8. It is a lovely shade of orange with a flame-red beard, and has three branches plus spur and terminal, all in 26" of height. Do you suppose that all of this color will be short in California?

CALIENTE (Luihn '68) was the very reddest I've ever seen. In fact, it is the only one that isn't a shade of red-brown. We flipped. Though it was only 30" in height, there were two or three candelabra type branches plus a spur and terminal. It is close to spectrum red, with a sooty overlay. The hafts are clean and the wide orange beard adds to the brightness. The domed standards are slightly ruffled, and as the flower ages there is a tendency for them to open a little. The slightly ruffled flaring falls even have a bit of lace. It was nice that in the Luihn garden the planting was sufficiently large to show the flowers in all stages of aging. I was happy to note that even the older flowers showed no evidence of burning or bleaching.

I saw BURNISHED ROSE (Fail '67) in one of the convention gardens and was much taken by its coloration. I'll have to grow this one to really evaluate it, for there just wasn't enough time on the trek to take complete notes on everything.

THE DARK AGES ARE ENLIGHTENING

Ruffles for the most part have been reserved for the lighter toned irises and are seldom found in the darkies. Walt Luihn has reached the pinnacle with DUSKY DANCER ('67), a black black-violet self with great color saturation, including its black black beard. The ruffled blooms are well spaced on fairly tall well-branched stalks. The form of the standards is variable. In very cool weather they are conical; when the heat is turned on they become more domed. Regardless of temperature, the flower has a certain sheen that prevents it from "whizzling" in the hot sun as so many of the dark ones do, and the flower holds well for five days. This is surely

a great improvement in this color class. If it does as well in other parts of the country as it does on the west coast, it is headed for higher and higher honors.

SWAHILI (Plough '65) has large flowers that are semiflaring, with broad petals like its parent ALLEGIANCE. EDENITE gave it its color. With SWAHILI there is considerably more color saturation and it is taller, too. The well-branched stalks are sure to win a blue ribbon in any show.

NIGHTLINES (Gibson) is a lovely dark plicata. Color saturation of the stitching is a deep indigo blue. It is even darker than DOT AND DASH, and this stitching is very fine and delicate. As it reaches the edge of the falls it becomes a blush encircling them. The slightly ruffled domed standards are a very dark navy blend. The wide flaring falls ruffle and have a saucy flip. The hafts are wide and clean, and the flower's balance is perfection. Best of all, the vigor of this plant is above average, with six or seven increases per mother rhizome.

GOOD NEIGHBOR POLICY

When my neighbor moved in December, she left in my care these irises she was guesting, and so I was able to see Melba Hamblen's stunning TOUCHE. This is another one that will send up multiple bloomstalks, and knowing that it was scheduled for introduction, I wrung my hands as each new stalk pushed its way upward. They have been trying for a pink and blue bicolor for some time, and from a distance TOUCHE is pink and blue, for those are the colors that carry. On closer inspection we find domed and ruffled standards of mauve-pink. The ruffled, fluted, corrugated wide flaring falls are a violet-blue . . . what I term periwinkle. The beard is tangerine but not too "orangy." It complements the flower. The stalks had three and four branches plus spur and terminal, and the bud sockets were multiple. Height varied from 38" to 44". OUTSTANDING.

CELESTIAL RENDEZVOUS

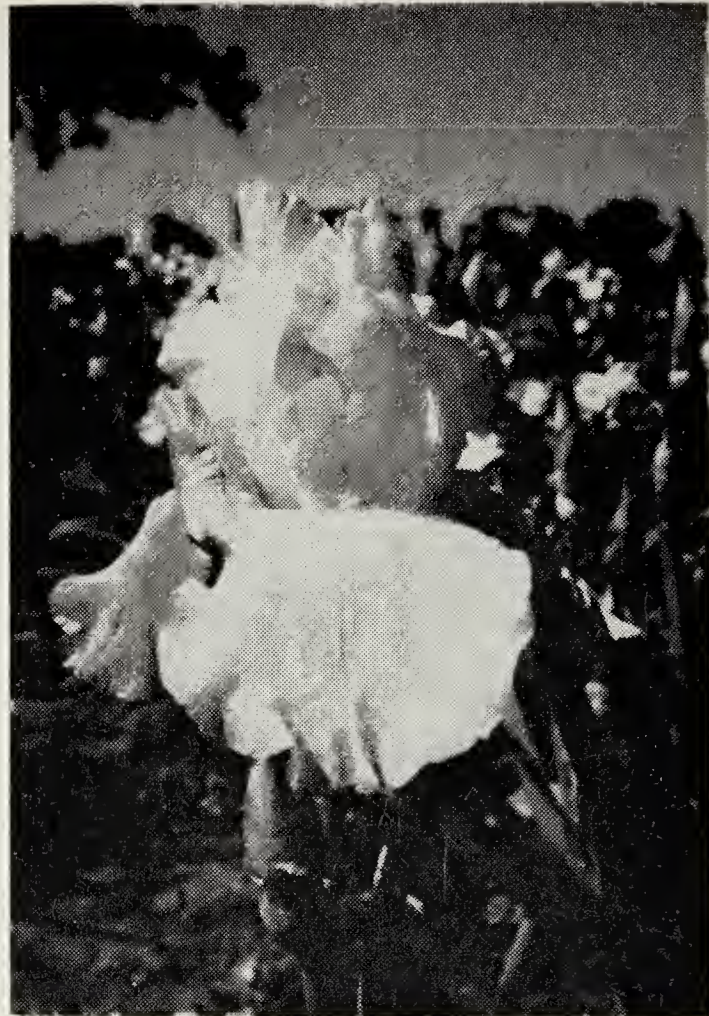
The planting of LAURIE (Gaulter '66) in its home garden was fantastic; no wonder it received the President's Cup this year. This heavily laced "ashes of roses" sports a tangerine beard on extra wide fluted falls that have a porcelain like finish. Branching, height and vigor are all extra fine.

SAN LEANDRO (Gaulter '68) was another in this garden that was outstanding. A reverse bicolor with good height. There were two candelabra type branches plus spur and terminal. The form is reminiscent of RIPPLING WATERS, with standards an unusual tone of periwinkle blue-violet, topping falls that are almost white, and sprinkled with diamond dust. It is accented by a fuzzy rose-red beard.

Did you notice TRALEE in Glenn Corlew's garden? It was under number 302-5A, and is out of ARCTIC FLAME X GRADUATION GIFT. It has wonderful height, vigor and increase. There were two candelabra branches plus a spur and terminal. It has heavy substance, excellent balance and well-timed multi-budded sockets. The color of this extremely ruffled and lacy iris is unusual in that there is an apricot overlay on the orchid-pink standards, which dome and overlap. The strawberry bearded



CHERUB CHOIR
(Corlew '68)



ROYAL GOLD
(Hamblen '66)

(Photos by Keppel)

pink falls have a blush of apricot at the hafts, and they flare almost horizontally.

CHERUB CHOIR (Corlew '68) was past its peak of bloom in its home garden, and besides I think it likes my garden better. From one rhizome planted in July '67 the plant produced five bloomstalks. It began my season and was still going strong when I returned from the convention. Bloomed out??? No, indeed . . . there were still four fine rhizomes to carry on. In our garden the wind comes up the river channel in the morning, blows a gale, then turns and returns from whence it came. This is the garden to separate the weak from the strong. The 36" well-branched stalks of CC took all the weather could throw, yet remained unscathed. The domed ruffled standards are predominantly white and about each texture vein is a distinct rosy blush, giving a pink marbled effect. The widely ruffled nearly horizontal falls are a creamy white, with a faint blush of delicate pink (EMMA COOK fashion) at the margins. The color deepens and widens into a blush at the hafts. The beard looks like a fuzzy white caterpillar is entering the heart. To add to its beauty there is a bit of lace at the tip of the standards and the bottom of the falls. Texture of the falls is that of white suede sprinkled with stardust. Naturally, it was dubbed exquisite by all who viewed it, and was truly the queen of the garden.

The hospitality, the renewing of old friendships, the well-cared for gardens, the gorgeous bloom of all types of irises . . . that's what I like about the North. It was a wonderful season. Hope we can have a repeat performance some day.

PLANNED PARENTHOOD, IRIS STYLE

Keith Keppel

“Yes, I am making a good many crosses, but I do not run about with a long handled broom.” So Hans Sass once wrote. How about you? Are you using good sense in picking your iris parents, or are you using a long handled broom? It takes as much time, space and horsepower to grow a row of inferior seedlings from haphazard (or bee!) crosses as it does to grow a row of potentially decent seedlings from well-planned crosses. The choice is yours.

How do you go about picking iris parents? Sometimes an iris you see is so superlative that it just begs to be used in a cross. Then it is just a case of deciding what to match with it. Other times you may have a specific “line” in mind, such as crossing the better blues and the better red-bearded whites, then inbreeding, to try for a real blue-with-red-beard. No matter what the plan of attack, before using an iris stop and think, “What will it contribute toward the goal?”

As a rule (and remember, there are exceptions to every rule), you get the best from using the best. When an iris with a definite fault is used as one parent, it is important that the other parent be faultless in the same category, so as to off-set the weakness. Cross an iris with weak substance with another iris with weak substance, and you deserve just what you get!

Unfortunately, no one has yet come up with a computer service for iris breeders, so you have to do it all in your head. So what factors do you consider when picking your iris date-mates?

ADAPTABILITY. We want an iris that grows well over much of the country, not one limited to a special micro-climate. If an Ohio-bred variety is a good grower for you in southern California, you can be fairly sure it’s brimming over with adaptability. If you do use an iris with a bad reputation (“tender,” “bloom-out in warm climates,” etc.), be sure to pick the other parent carefully.

AGE. Alas, some think the new “fluff on the scene” is the best to tangle with. While it is true that, theoretically, the newer an iris the better it is, this may be far from true. Some of the older varieties are far more likely to come through with the goods. Don’t hesitate to use an older variety if it has quality that compares with the new crop, especially if you’ve seen some of its seedlings and know what it can do in the right crosses. It may be “fashionable” to use the very latest new creation, but it may not get you where you want to go.

COLOR. Color is what really socks it to you. Unfortunately, to the degree that so many breeders are blinded to anything else. Choose color **in conjunction with**, not **to the exclusion of**, other factors.

DEFECTS. Defects may be heritable or non-heritable, but play it safe and presume that they are heritable. If you must use an iris that rips a petal upon opening or that has a “hung-up” fall where it can’t uncrimp its lace, make certain there’s no history of the problem with the other parent.

FLORIFEROUSNESS. So what are we growing the irises for, if not the flowers? Commercial orris-root production, anyone? Give special emphasis to varieties that bloom well over a long period of time **for their**

type. Whether the end product is accomplished by means of multiple buds, many stalks per rhizome, or ultra-heavy substance, who cares? Just so it does it!

FOLIAGE. And when the iris isn't in bloom? Like to look at droopy-tipped, ground-sweeping leaves? Skimpy, narrow leaves? Leaves decorated with leaf-spot, rust, bacterial splotches, virus discoloration? There's more to an iris than just a flower, remember.

FORM. Whether you prefer your irises cavorting in flaming hues, with bushy beards spilling over onto laced gussies, or individuals that are prim, proper, and subdued in a very tailored way—that's your choice—expression of the individual iris garden style. Decide what iris personality fits your ideals and then work toward it.

GROWTH HABITS. An iris which doesn't grow well doesn't bloom well, and even some that grow well don't always bloom. Unless you're a horticultural hypochondriac and delight in rushing your rhizomes in and out of sick bay, forget it. There are too many healthy irises to be bothered perpetrating a race of weaklings.

PEDIGREE. By all means check into the parents and grandparents of the iris you want to use. This will give you a clue as to the characteristics (good **and** bad) which may be lurking in the background. It may well give you ideas as to what lines to use with it and, of what characteristics to be wary.

PLACEMENT. Where are the flowers located, both in terms of space and time? If you like bloom in globs, may we respectfully suggest you switch to canna breeding?

PROPORTION. I can think of one lovely purple iris I would never use in breeding. The big flowers atop skinny stems always reminded me of a fat lady walking on stilts. It lacks proportion.

SEEDLINGS. "This is my very own seedling, and no one else has ever grown it; therefore, I can make crosses with it that no one else can duplicate." True. However . . . if the seedling happens to be a dog!!!, what's the point? If it's good, and what you need for your breeding program, use it. If it isn't, forget it.

STALK. What good is a beautiful flower if it is dragging in the mud? Unless you're breeding for snaky stalks for use by flower arrangers or ground-cover enthusiasts, you're defeating your purpose.

SOURCE. This variety (or seedling) came from Clarence Dykeswinner's inbred line, therefore I should use it. Maybe. Have you seen the run-of-the-mill seedlings he gets from this line, or just the two or three select ones from ten trillion seedlings? You probably can get some good things out of it, but don't expect it to do **all** the work; choose quality to cross with it.

STERILITY. The best laid plans . . . Ever want to cross two irises only to find that neither has pollen? Or neither will pod? Some years a variety may have pollen, the next it may not. Sometimes breaking off an opening bud and placing it in a cool, moist place seems to help. And sometimes nothing does. Like for me, **WINTER OLYMPICS** will never cooperate.

SUBSTANCE. Limp rags, anyone? Then watch for substance. Substance, when lost to a line, is very difficult to regain.

I'm sure if you think awhile, you can add to this checklist of factors.

Consider them this spring when you dust off your long handled broom; don't fight, switch!—to tweezers, fingers and common sense like the experts use. And although a few hybridizers may tell you they made a particularly productive cross simply because the two parents were growing side by side, most **do** put their brains in gear before engaging their clutch on the tweezers. Yes, iris parenthood **should** be planned.

SOME EXPERIENCES WITH REDS

Jesse E. Wills

Almost from the beginning of modern iris breeding, most hybridizers have been interested in reds, at least to some extent, either in striving to get a real red, or to improve upon those we already had. At the same time the popularity of the so-called reds has been much less than was the case with the whites, the yellows, the blues and the pinks. Only two reds have won the Dykes Medal, DAUNTLESS in 1929, and THE RED DOUGLAS in 1941. Since 1936 only eleven reds have won the Award of Merit. While there have been improvements in form and size and growing habits, some of the latest reds are not too different in color from those of years ago. A true, clear, bright red still eludes us. Perhaps it always will, because we are told that the necessary pigment is not present in the iris. What confuses me a little about this is the fact that one of the basic iris colors is purple, and I think of purple as a mixture of blue and red. Along with the difficulty in achieving reds, there has been a corresponding difficulty in separating out the blues. Even now some of the bluest blues won't stand the test of the afternoon sunlight shining through them. The other early strain, the variegatas, seemed to have brownish red in it as well as yellow.

Nearly every breeder has experimented at least a little with reds. For instance, Professor Mitchell produced years ago a tall, big red, which performed well on the West Coast, RUBEO, but which, unfortunately, was tender elsewhere. Colonel Nichols, the Sass brothers, Dr. Kleinsorge, Mr. Grinter, L. Merton Gage, and Mr. McKee in New England, Mrs. Whiting and Paul Cook have also produced at least a few reds, some of which were very useful in breeding. I am saving for special mention that red specialist, my friend Greig Lapham, who confined himself to reds and pinks, and whose originations covered more than a third of a century. Some of his highlights through the years were JERRY, CHRISTABEL, RED GLEAM, PACEMAKER, and TOWN TALK. Greig occasionally made crosses outside of his own line. It is interesting that TOWN TALK came from a Paul Cook seedling crossed with Geddes Douglas's DRUM MAJOR. I have found it a good parent for height and branching. Some other reds which have proved outstanding as parents are PACEMAKER from Lapham, TECHNICOLOR from Mrs. Whiting, TALL CHIEF from De Forest, PRIVATEER and DEFIANCE from Chet Tompkins, and TRIM from Mr. McKee. In recent red breeding, Chet Tompkins and the Schreiners have been outstanding. I liked some of Chet's earlier reds, notably PRIVATEER, very much. Some of the later DEFIANCE seedlings I did not like as well, but he has had some fine ones recently, PALO DUROS and BERMUDA HIGH, for instance. The Schreiners, with their long ex-

perience and knowledge of breeding, can achieve outstanding success in any color class to which they turn their attention. They have been producing better and better reds. Some of a few years ago that I liked were FIRE BRIGADE (except that I could not cross it), TILLAMOOK, and VELVET ROBE. Recently, I have liked GYPSY JEWELS and its child, FRONTIER MARSHALL. I am looking forward to seeing WAR LORD. I cannot mention all the good reds, or the people who produced them. The new Cook-Lapham Bowl should encourage the production of even more.

Back in my beginning year of 1937, I crossed HERMITAGE, a reddish blend from Dr. Kirkland, with HERNANI, a bright little French flower from Cayeux. In 1939 a rather nice red bloomed from this cross and this has continued through the generations in my seedlings. I got another good red from MARVELOUS, a yellow of Dr. Kirkland, with brown-red streaks on the falls, and JERRY, an early red of Mr. Lapham. I combined these two seedlings and carried the strain on, but continually made outcrosses with the best new reds I could find from other people. Some of the others I used years ago were E. B. WILLIAMSON, GARDEN FLAME, GARDEN MAGIC, RED BONNET, OURAY and PIUTE (these gave small flowers) and a little later, TECHNICOLOR. In each case, these and others were combined with one of my own seedlings. Gradually this interest in reds increased. Along with the red lines, I had also been working with a strain of pink and rose blends which combined height and good branching. I have crossed these continuously into reds with good results. I have also crossed the related yellow blends, the tans, the browns and coppers, into red. These seem to be important in giving brightness.

The color I have been seeking is what I call a rose-red. Some might describe it as a cherry-red, but I think of this as being darker. I am looking for bright color, from the brown or yellow side perhaps, but not too brown, and not too purple, and not too copper, though I have some of all these types. Some flowers are more rose, some more red; sometimes one like ORENDA will be rose some seasons and red in others.

My first rose-red to be introduced, HEART'S DESIRE, was a break from two pink blends. It is tall and well-branched, though the branching is too wide to suit me. I saw this once in the North so well grown I did not recognize it. It has not been an outstanding parent, but its line continues in the third and fourth generations of some of my seedlings. Many years ago I crossed PRAIRIE SUNSET and LANCASTER and got a big, wide, brown-rose seedling that proved to be one of the best parents I have ever had. It has given me reds and pinks, and varied yellow blends. When I crossed it with DISPLAY, a nice red from Dr. Grant, it gave me RIGHT ROYAL, one of the high marks of my red breeding. It was a bright rose-red of good form and fair height. It was in the catalogues for a while and some people thought it was the reddest iris yet. It was not easy to cross, for it had no pollen. It would set seed, however, though with some difficulty. By crossing practically every blossom, I got some pods every year and good seedlings came from it. About this same time, I obtained CARNTON from the same PRAIRIE SUNSET and LANCASTER seedling crossed with BRYCE CANYON. It was taller than RIGHT ROYAL and more of a copper-red. It was not introduced as soon because it had more striations at the haft than I liked. It seemed to

do well everywhere, particularly in England, and also has proved a good parent that is much easier to cross than RIGHT ROYAL. I never could cross these two, no matter how many times I tried, but their line is combined now in later generations.

I crossed CARNTON with HYBLAZE, a tall red from H. F. Hall of New Jersey, who produced a number of good things, and from the cross came KING'S MOUNTAIN, perhaps the most spectacular of my reds to date, a big, flaring rose-red flower on a tall well-branched stalk. It grows so well with me that it may grow too tall, or not hold its head up in cooler, damper climates. I have to stake it in my garden to keep it from going over at the first good wind. Its flower is a little rough, like that of CARNTON, but its color is distinctive and vivid. It has also proven to be an outstanding parent.

My interest in reds has grown through the years so that my own seedling patch shows the rose and red tones predominant, even more than the yellow amoenas. Sometimes when the sunlight comes at the right angle, the color that shines out is really red to me, even in comparison with such other flowers as late tulips. Besides working for better color, I have also worked for better growth and better branching. Years ago, when I first got interested in breeding, Mr. T. A. Washington, one of the pioneers here in Nashville, told me that he did not think variegatas did as well here in Nashville as they did in the North and in the East. I am not sure about variegatas, but this seems to be true of reds which derive from them. I have noticed that many reds that I have grown did not do as well after the second or third year. They tended to be short and bunched. TALL CHIEF, for instance, was true to its name for a couple of years, and then it ceased to be tall.

I have now succeeded in getting height and size and branching into my red strain. This is true not only of those that come from KING'S MOUNTAIN, but also some from other involved strains which I have not attempted to trace here. I am now trying to put more ruffling into these red flowers, and I am beginning to have some success with this. I sometimes feel that I have been more successful in achieving my objectives with the reds than anywhere else. This does not mean that I have gotten recognition for them, for I have not. It means that I am close to achieving the goals I have set myself, which is the basis I have always worked on.

It might be of some interest for me to comment on the parentage of some of my recent reds. Several years ago I introduced FIREDRAKE and PORTO BELLO. The first came from some of my pink blends doubled up, but also contained BRYCE CANYON and CENTURIAN. The last was a bronze of mine. FIREDRAKE is a sort of bronze-red.

PORTO BELLO is a flame colored flower rather than a red, more of an orange-rose. It goes back to my PRAIRIE SUNSET x LANCASTER seedling crossed with TOBACCO ROAD, and then involved complicated crosses with my pink blends, but also it includes MARY RANDALL. I am using it a good deal in breeding. NATCHEZ TRACE, which will be introduced in 1969, has the following parentage: ORENDA X ((ORELIO x HEART'S DESIRE) x (Red seedling x CARNTON)). ORENDA came from RIGHT ROYAL crossed with a red seedling that went back to my original HERMITAGE x HERNANI red. GARDEN FLAME and a red

of Mr. Gage were also involved here. The red seedling that was crossed with CARNTON also went back to the same original seedling, but also involved PIUTE, PRAIRIE SUNSET and RED BONNET. NATCHEZ TRACE is a very nice flower of good form which is between a brown and a rose-red. It interests me because it combines my RIGHT ROYAL, HEART'S DESIRE and CARNTON lines. I do not by any means consider it my final red, however; it does not grow as tall as some of the others, though it is of good medium height with good branching and quite a number of buds. I had several very nice seedlings from KING'S MOUNTAIN X (ORENDA x TALL CHIEF). One of these, which is registered as ROUND DANCE, may also be introduced next year. It is interesting because it has a distinct bluish cast to the standards which contrasts well with the rose-red falls. There are several other good seedlings from KING'S MOUNTAIN by other crosses, but let us save a discussion of these until they prove themselves more.

On the Trail of That Elusive Red Iris

W. B. Schortman



SEEING RED '67

For years I have crossed, raised and discarded thousands of red seedlings. All the red irises had heavy striations and had a rough appearance. Each group of seedlings, year after year, showed very little improvement, and it looked as if we never would get rid of the rough hafts. In 1950 I gave up raising them but kept several of the most promising of the so-called red seedlings. Those saved involved INDIAN CHIEF, THE RED DOUGLAS, GARDEN GLORY, RED DOMINION, ELMOHR, GARDEN MAGIC, GARDEN GLORY, BRYCE CANYON, SAVAGE, SNOW FLURRY and NOMOHR lines.

While at the Salt Lake City convention, I saw Tom Craig's BANG. This was the cleanest so-called red I had seen up to that time, and it started me back on the trail of the red iris

line. Then along came Chet Tompkins' DEFIANCE, TALL CHIEF from Fred DeForest, and others, most of which were on the brown side. I had made up my mind that this was the side from which the better reds would come, because of the years of experience I had using both violet and brown.

I certainly enjoyed the many articles in the October Bulletin, and it brought back many memories, though I no longer have any of them in

my garden. How I wished that Greig Lapham, Paul Cook, Fred DeForest and so many others could have been here to read and to give their experiences with this red line. I was in correspondence with Greig and Paul for several years to exchange ideas in red breeding. These fine gentlemen, along with the Schreiners, Chet Tompkins and others, deserve much credit and will long be remembered for the work they did to give us these much improved red irises of today. It certainly took lots of work and patience to stay with this red line.

As Bob Schreiner wrote in his article, "There are no red genes" in the iris family, nor are there blue roses, geraniums, carnations, etc. All flower families have their special colors. As you all know, a certain famous seed house has offered a large cash prize to any one who can produce a good white marigold. It doesn't look as if this would be hard to do, but no doubt this seed house has raised millions of marigold plants from selected seed, but no white has been found. So who knows if a geranium red will ever be had in irises. But surely there will be blends, and improvements in form, lace, fluting, etc.

During these many years of hybridizing I experimented with x-rayed seeds, and I also used colchicine in the hope of changing the genes and chromosomes to get desired improvements. I also used several chemicals to improve the germination of seeds. After all these years of experimenting, I finally decided that Mother Nature's way was best, and that to help Mother Nature in making our choice of parents is our best bet.

Here in our San Joaquin Valley (pronounced Wakeen), we have near perfect conditions for hybridizing and raising irises; and if our eastern hybridizers could have had our conditions the red iris would be much more advanced today.

About 1958 I used my two best red seedlings and crossed them with BANG and TALL CHIEF. Several good promising seedlings came from these crosses, and by crossing the best of these, I had a nice clean so-called red, with all good qualities, that I named GRAND SURPRISE. This was on the brown side, and I crossed it to TALL CHIEF, which was darker and on the violet side. GRAND SURPRISE had a narrow blue mark part way down the center of the falls; otherwise it was a self. When the seedlings from this cross bloomed, we had several good seedlings, none of which showed the blue mark. Several were nicely ruffled. One was the best red iris I have seen; no striations and a very clean, ruffled, tall red which I named SEEING RED. I feel that this is a big stride in the red line, and will give those interested in hybridizing reds an iris to improve their own red lines. It blooms mid-to-late, extending the red iris season by some ten days.

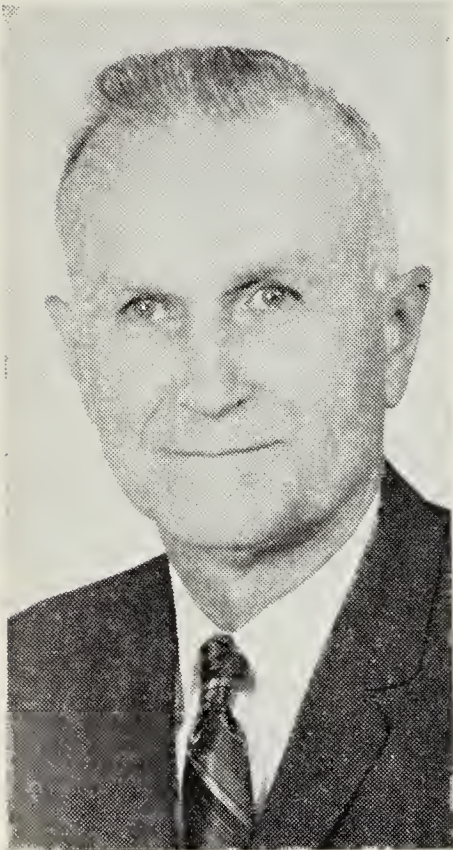
For best results, one should always use red to red; using anything else will only give you blends, which is what we are trying to get rid of.

I now have a new red from SEEING RED, #7727, which will be named.

My years of hybridizing are numbered, and I would like to see the younger hybridizers take up the red line. I think it will be very rewarding to them. My only regret is that I could not have had the new reds ten or fifteen years ago to work with.

Perhaps some day the computer will be used to work out the right cross to make to get the desired flower and plant.

NEW PRESIDENTIAL TEAM



PRESIDENT
Mr. Wm. T. Bledsoe



FIRST
VICE-PRESIDENT
Dr. J. Arthur Nelson



SECOND
VICE-PRESIDENT
Dr. Hugo A. Wall

WILLIAM T. BLEDSOE

Mr. William T. Bledsoe now is the twelfth President in the history of The American Iris Society. He comes to this high office with a sterling set of credentials, with a contagious enthusiasm and an amazing grasp of the detail of the entire gamut of AIS operation.

“Bill” Bledsoe is a successful iris gardener and an up-and-coming hybridizer. He was the first Regional Vice President of the newly formed Region 24, serving in that capacity in 1959 and 1960.

In 1963 he was appointed the Chairman for the Revision of the Judges Handbook, and this monumental and epoch-marking publication stands in eloquent testimony of his ability to coordinate and to organize. Currently he is engaged in the directing of a team of writers in another revision of this book.

In January 1965, he became a member of the Board of Directors of the Society, and was assigned as Chairman of the Exhibitions Committee. In January 1966, he was elected as Second Vice President of the Society.

In January 1968 he was appointed Chairman of Judges Training Committee, but even prior to that he had been conducting highly successful judges training sessions in many parts of the country. Perhaps this is the way the members of our Society now best know “Bill” Bledsoe—a dynamic instructor of exciting and fruitful judges training sessions.

J. ARTHUR NELSON

Dr. Nelson continues as First Vice President of the Society. He first became a member of the board in October 1958, served three years as Second Vice President and enters his second three-year term as First Vice President. He served for several years as the Chairman of the Exhibitions Committee, and is currently editor of *The Bulletin*, Registrar and Chairman of the Awards Committee.

HUGO A. WALL

Dr. Hugo A. Wall is the third member of the presidential team. He too comes to this post of responsibility with an imposing set of credentials. He served as a highly successful Regional Vice President of Region 18 from 1959 to the end of 1961. He continued to be active in the affairs of his Region and in AIS, and in 1968 became a member of the Board of Directors of the Society. He was assigned the post of Chairman of the Membership Committee, and his study of membership trends is a truly scholarly achievement in utilizing the tools of science and statistics to the problem. Dr. Wall has been an active and much sought-for instructor in judges training schools. He is a hybridizer on the trail of the elusive red. He was elected to the post of Second Vice President of the Society at the November meeting in Chicago.

THREE NEW BOARD MEMBERS



Thomas E. Jacoby



Mrs. C. E. McCaughey



Earl T. Browder

THOMAS E. JACOBY

Thomas E. Jacoby was born December 29, 1893, in the hamlet of Walbert, six miles west of Allentown, Pa. In 1949, he retired from the post of chief personnel officer for the U.S. Fish and Wildlife Service, in Washington, after 32 years of service in FWS and in one of its predecessor agencies, the Bureau of Biological Survey.

Tom's first irises were given to him in the early 1920s by a coworker who had obtained the stock from B. Y. Morrison, later AIS secretary and editor. These unidentified short varieties were remarkably floriferous; but they had to be discarded during a later move. In 1951, he purchased a dozen named varieties and his interest has gradually shifted and now he acquires a small collection of debutantes each year.

Mr. Jacoby's editorial career started in 1957 when he accepted the editorship of the ESIS quarterly newsletter. "Irisarian William Fitzgerald of Rochester," he explains, "taught me the mechanics of preparing copy for photolith reproduction in pamphlet form." During Dr. Randolph's presidency of AIS, Tom was appointed editor of the AIS Bulletin and he held this post until 1964.

A year ago Bill Peck, then ESIS president, was beating the bushes for an editor, and Tom volunteered to get out the February issue. The editorship in the incorporated ESIS is now an elective office and last fall, having served as editor in the interim, he was elected for a full year.

MRS. C. E. McCAUGHEY

Helen Robinson McCaughey was born, reared and educated in Oklahoma. She reports that college was cut short in favor of becoming a homemaker. Her family consists of a husband, a step-daughter, her husband, and two grandchildren.

Her iris activities started from watching a neighbor grow irises easily. Later this neighbor took her to an iris show and to a commercial iris garden, and the iris virus caught. Shortly after this, another friend invited her to join the local society. This group grew by leaps and bounds into the Oklahoma Iris Society of today. Shortly thereafter she joined the American Iris Society, and attended her first convention in St. Louis, in 1952. She reports that this experience was so much fun that she has missed only two national conventions since.

Mrs. McCaughey served as RVP in 1956 and 1957. She took a year leave of absence, to resume duties as RVP in 1959, when Oklahoma City served as the host city for the national meeting.

Six years ago she was appointed Historian, a then newly created office of AIS. In this capacity she has been busy gathering together the records of the Society, and in her words, "It has been a most rewarding task to study the formative years of the Society, forward."

Mrs. McCaughey will average about 4,000 miles a year, seeing irises.

EARL T. BROWDER

We discovered that this new Board member would rather talk about irises than about himself. However, we were able to ferret out these facts.

He was born near St. Albans, W. Va., soon after the turn of the century. Family records say that he was born January 30, 1904. His birth certificate reads January 30, 1903. How old is he?

He was educated in local elementary and high schools, and this was followed by engineering. He joined his father (who forty years earlier had joined his father) in the contracting business in 1932, and in 1950 incorporated the business of which he now is president.

He is married to Goldie Myrtle Hall. The Browders have five children, one son and four daughters. They have twelve grandchildren. He is a member of St. Andrew's Methodist Church in St. Albans, is a thirty-second degree Mason, a Rotarian, President of the local Chamber of Commerce, and is active in contractors and civic organizations.

Mr. Browder is past-chairman of his local iris chapter, and past-RVP of Region 4. He grows some 350 tall bearded irises and quite a few Siberians, medians, dwarfs, Dutch and reticulatas. He boasts that he can show an iris of some kind in bloom for at least eight months of the year, and he nearly always makes good on this promise. Mr. and Mrs. Browder have attended the last ten national conventions.

Four Distinguished Service Medals



Ada Buxton



Peggy Burke Grey

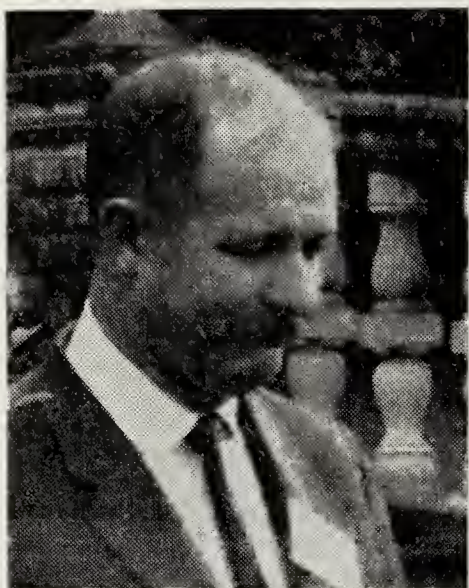
Mrs. Walter H. (Ada) Buxton

Ada Buxton receives the Distinguished Service Medal as a well-deserved honor for her services on the Board. She became a member of the Board of Directors in January, 1963, and closed her term at the end of 1968. During her service on the Board, she was Awards Chairman from 1963 to the end of on 1965; and from the experience of the present Awards Chairman, this task, without immediate reference to the Registrar's files, must have been an extremely difficult assignment. During 1966-67-68 Ada was Chairman of the Garden Judges Committee, another assignment requiring meticulous checking.

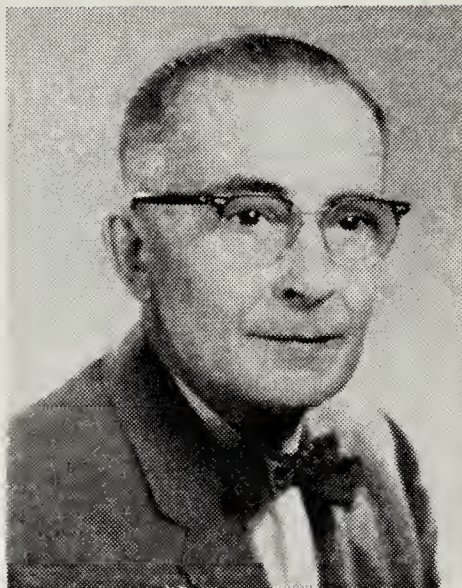
Mrs. Peggy Burke Grey

Many are the services Peggy Grey has given to the Society. From the introduction of *Flight Lines* in the April 1957 Bulletin, she has remained as the chief coordinator-writer for the column, and currently is Robins Chairman and Associate Editor of The Bulletin. She contributed greatly in the writing of the *Judges Handbook*, and again now in its revision. She

is a consultant in the revision of *What Every Iris Grower Should Know*. In fact, there are few important publications of AIS in which Peggy Burke Grey's word magic does not have a part.



Dr. J. R. Durrance



Hubert Fischer

Dr. J. R. Durrance

Jack Durrance became a member of the AIS Board of Directors in January 1958, and closed his term on the Board with the end of 1968. In April 1958, he took over the duty of formulating the plans for test gardens, and subsequently, when the national and the regional programs were separated, took over the directing of the Regional Test Garden Program.

Jack had a guiding share in the success of the two national conventions in Denver. No one who attended the last meeting at Denver ever will quite forget his AZURE APOGEE nor his Cook-Douglas Award winning EASTER HOLIDAY.

Hubert A. Fischer

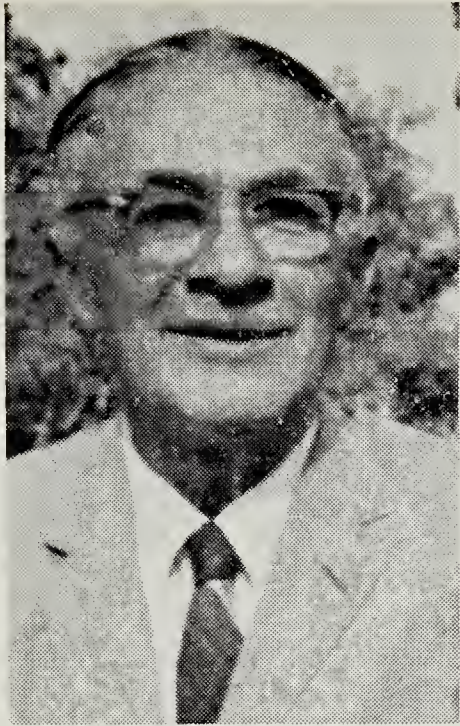
There is no doubt that any person who accepts the tremendous responsibilities of the office of President of The American Iris Society deserves the Distinguished Service Medal; and the conscientiousness with Hubert Fischer accepted the challenges of the office, and the time and energy he poured into it doubly warrant this honor for him. He had served superbly in a number of other capacities during his twelve years on the Board, and became the eleventh President of AIS in 1966.

Perhaps nothing else says so much about the man as his closing words to the Twin Cities Iris Society annual meeting: "We pass this way but once, so in passing, let us mark our paths with beauty, that those who follow us may see which way we went."

TWO HYBRIDIZERS MEDALS

Fred Cassebeer

Mr. Fred Cassebeer, Editor of *The Bulletin* (1940-46, inc.) member of the AIS Board of Directors (1940-51, inc.) and recipient of the Distinguished Service Medal in 1952, now, by action of the Board of Directors at the November, 1968 meeting, has been given another well-deserved



Fred Cassebeer



Opal Brown

honor, that of the Hybridizers Medal.

All who know much about irises know his WHITE SWIRL, which in 1962 won both the Morgan Award and the Award of Merit from the Royal Horticultural Society. VIOLET FLARE won the Morgan Award in 1966, BLUE BRILLIANT in 1967, and PIROUETTE in 1968.

His beautiful garden in West Nyack, New York, is listed in *The New York Times* as a garden to visit in iris time.

Mrs. Tom M. (Opal) Brown

Opal Brown also was awarded the Hybridizers Medal at the Chicago meeting. There are few iris gardeners who have not seen and admired the beautiful white Dykes Medal winner of 1967, and at the epitome of perfection it almost alone could make the case for the Medal. But her iris production includes in addition the AM winners POET'S DREAM and GYPSY LULLABY, and such rising notables as BARCELONA, SEASIDE and GLACIER SUNSET, to mention only high-ranking HM winners in 1967.

A check of the awards records over the years discloses a large number of award winners originating with Opal Brown, and a check of her seedling rows indicates that more are to come.

SEVEN NEW RVPS

Region 2 — Harry B. Kuesel

Harry Kuesel comes to this position with a wide interest in irises. He speaks of SIERRA BLUE among his first irises, and he soon became interested in arils and other colors in tall bearded irises. The next step was with rebloomers and summer bloomers, followed with MDBs and median irises. He later developed an interest in Siberians, and even later in spurias and Louisianas.

Harry was graduated from Amherst College, served five years in the army during World War II, has a Master's degree from Harvard University, and currently is the president of the Median Society.



Harry B. Kuesel



C. W. Army, Jr.

He is married to Eleanor Evenson, and the Kuesels have three children, two sons and one daughter. The oldest son is a senior at the University of North Carolina, the daughter is a freshman at Ohio University, and the youngest son, who helps with garden chores, is in high school.

Harry is the editor of the first revision of WEIGSK, and publishes a catalog of irises under the title of Old Brook Gardens.

Region 10 — C. W. Army, Jr.

Charles W. Army, Jr., Associate Professor of Economics at Southwestern Louisiana Institute, and the owner of Charjoy Gardens in Lafayette, Louisiana, is the new RVP of Region 10. He is deeply interested in Louisiana irises, and for his work in this field was awarded the Hybridizers Medal last year. This hybridizing and collecting program has extended over some twenty years. He has won some fifteen AIS awards, included the Mary Swords DeBaillon Award in 1961 for his origination, LOUISE ARNY.

He has served as president of the Louisiana Iris Society. He is married to Joyce Eleanor Bachemin, and both she and their son, "Chuck", have been able assistants in the Charjoy Gardens.

Region 11 — Phyllis Holtz

Mrs. Don R. (Phyllis) Holtz has been an iris gardener since 1953, and joined the American Iris Society in 1956. She is particularly interested in medians and rebloomers, and has been hybridizing irises since 1957.

She is a legal secretary, with twenty-two years of experience, sixteen of which were in specializing in mining and corporation law. She currently is corporate secretary for one mining corporation, and acts in an advisory capacity for two other mining corporations.

She is married, and has four children and six grandchildren.

Mrs. Holtz approaches her RVP duties with laudable enthusiasm. She plans to travel in Region 11 during her term of office, and visit as many members as possible.

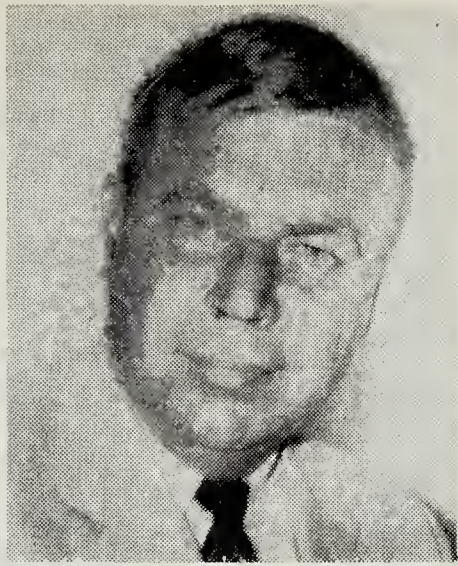
Region 15 — Arthur B. Day

We took the liberty of quoting Mr. Day: "For as long as I can remember, there have been irises at my home in Chula Vista. I recall as a youngster taking a tall bearded white iris to a local flower show and carrying home a trophy; many years were to pass before I was able to do that again."

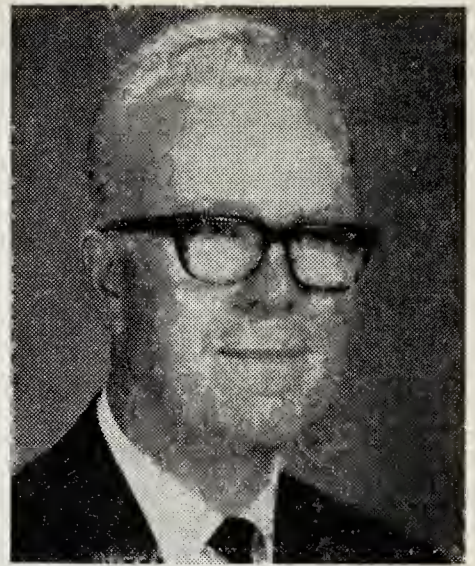
After graduation from high school, Mr. Day joined the navy, and spent



Phyllis Holtz



Arthur B. Day



L. E. Brooks

the next twenty-odd years traveling the Pacific ocean, visiting the east coast, and looking over the Caribbean. In 1952 he happened to see an iris catalog, and the old interest was rekindled; but the change of duty to Annapolis delayed the order. Three years later the order was placed, and since then ordering has been an annual occurrence.

A tour of instructor duty at Coronado resulted in his having daily contact with his irises, and it was not long before he retired from the Navy as a Lieutenant. Since then he has served as treasurer and as president of the San Diego-Imperial Counties Iris Society.

His primary interest is tall bearded irises, especially rebloomers; but if a plant is a member of the Genus *Iris*, a spot will be found in his garden for it. Recently he has started hybridizing, with the goal an ever-blooming tall bearded iris.

Region 17 — Lester E. Brooks

Lester Brooks is a native Texan, and a graduate of Texas Technological College of Agriculture, with a major in horticulture.

His interest in irises began in the early thirties when, as Horticulturalist at the Wichita Valley Experiment Station, he acquired forty rhizomes of tall bearded irises for adaptation studies. Mrs. Brooks became interested, and thus began a mutual hobby which has grown through the years.

When Mr. Brooks retired as Superintendent of the Experiment Station in 1964, they moved to a new home overlooking the Big Wichita River Valley. Growing, hybridizing and judging irises, along with creating beauty in a naturally lovely landscape, has become a full time job.

Mr. Brooks serves as consultant to a large industrial firm that specializes in guar beans, a field in which he devoted thirty-five years in research and development. On his retirement for the experiment station, he was honored by having a variety named after him.

Mr. Brooks is a Past District Governor of Lions International. The Brooks have one daughter and four granddaughters.

Region 19 — Mrs. Ira E. Wood

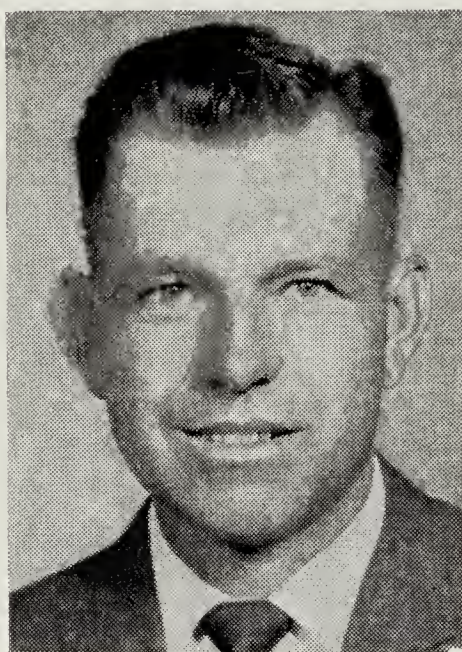
Mrs. Ira (Betty) Wood comes to the tour of duty as RVP of Region 19 with a wide acquaintance with iris growers throughout the world. She is a talented writer, and her account of the Woods' visit to iris gardens and meeting in Australia and New Zealand in the October '68 Bulletin proved

to be one of the Bulletin features.

Betty Woods is a graduate of Barnard College, and holds a Ph.D from Bryn Mawr, with honorary degrees of D.Sc. from Wheaton College and Western College for Women. She has taught at Bryn Mawr, Barnard and Fairleigh Dickinson University, and was a National Research Council Fellow at Columbia in 1942-43. She was a member of the Physical Research Department of Bell Telephone Laboratories from 1943 until she retired in October 1967. She has written about forty professional papers on crystallography. Her latest venture in writing is the 1968 Houghton Mifflin publication, *Science for the Airplane Passenger*.



Betty Woods



Leo W. Framke

Her experience with the several national conventions held in New Jersey and the surrounding area, and her keen analytical mind, should prove to be distinct assets to the progress of Region 19 and iris gardening in the area.

Region 21 — Leo W. Framke

Leo Framke has been growing irises since 1956. It was at this time that a tall bearded rhizome was sent to him by his aunt, Mabel Framke of Oregon. Currently, he grows about seven hundred varieties.

Leo operates a four hundred twenty acre farm largely devoted to corn and soy beans. During the winter months, both he and his wife, Helen, are tax consultants at the Blencoe State Bank.

Flowers are a hobby of both Leo and his wife, but irises are his main interest. He is the Past President of the Blencoe Garden Club, Past President of the Sioux City Iris Club, and Past Treasurer of Region 21.

Mr. Framke is a graduate of Morningside College. The Framkes have three children, a married daughter and two teen-age sons.

ATTENTION 1969 JUDGES

On the following pages appears the list of Judges for 1969.

To allow awards to be published in the July *Bulletin*, all official ballots must be postmarked not later than June 25.

AIS JUDGES FOR 1968

The following rosters by Regions include five categories of judges: Garden judges, exhibition judges, senior judges, honorary judges and apprentice judges.

By authority delegated by the Board of Directors, members nominated by the Regional Vice Presidents as garden judges or as exhibition judges have been accredited, respectively, by:

MRS. WALTER BUXTON, *Chairman*, Garden Judges Committee.

DR. CLARKE COSGROVE, *Chairman*, Exhibition Committee.

Exhibition judges are accredited to judge exhibitions only. Garden judges are also exhibition judges.

For the changeover in the manner of appointing and accrediting judges, effective November 1, 1968, see:

1. AIS Bulletin, January 1967, p. 99.

2. AIS Bulletin, April 1967, pp. 20—26.

Garden and exhibition judges hold office for one year, with reappointment contingent upon the performance of all duties required of the office. The number of judges for any Region may not exceed fifteen per cent of the total AIS membership of that Region. RVPs, present and past, and Honorary and Senior judges, and Judges transferred within the past three years from another Region, while in good standing, do not count against this total.

Senior judges are (1) accredited garden judges automatically elevated to this class after fifteen years of service, and (2) present and past Directors. These judges have all the voting privileges of garden judges, but are not required to visit gardens nor to vote unless they wish to do so. They are expected to participate in the training of new judges.

Honorary judges are appointed by the Board of Directors. This office is an honor given to judges who have rendered outstanding service to the Society. Honorary judges have the voting privileges of garden judges, but exercise of the privilege is optional.

In the lists, garden judges are identified by a G, exhibition judges by an E, senior judges by an S, honorary judges by an H, and apprentice judges by an A.

REGION 1

Massachusetts

- | | |
|--|--|
| G RVP, Mr. Kenneth M. Waite, Westfield | G Miss Eleanor Murdock, East Templeton |
| H Mr. John A. Bartholomew, Milton | H Mrs. Thomas Nesmith, Lowell |
| S Mrs. John A. Bartholomew, Milton | G Mrs. Irving J. Russell, Farmingham |
| S Mrs. Thelma Barton, Gardner | G Mrs. James H. Shepherd, Westborough |
| S Dr. G. Percy Brown, Barre | G Mrs. Shirley Spurr, Melrose |
| H Mr. Stedman Buttrick, Concord | S Mr. Kenneth Stone, Fitchburg |
| H Mrs. Preston E. Corey, Concord | G Mr. Carlton J. Ulm, Taunton |
| S Mrs. Irving W. Fraim, Waltham | G Mrs. Carlton J. Ulm, Taunton |
| E Mrs. John Johnson, Quincy | G Mrs. Frank W. Warburton, Westboro |
| G Mrs. Stephen C. Kanela, Walpole | G Mr. Win Wheeler, Sherborn |
| G Mrs. Peter C. Markham, Lunenburg | |
| E Mrs. Percy I. Merry, Needham | |

Maine

- G Mr. Bernard W. McLaughlin, South Paris

New Hampshire

- G Mr. Arthur J. Watkins, Concord
G Mr. James E. Welch, Manchester

Connecticut

- G Mrs. C. A. Bahret, Danbury
G Mrs. Edwin D. Bartlett, Guilford
G Mr. Frederick W. Gadd, Wethersfield
G Mr. John E. Goett, Monroe
G Mr. Frank E. Halleck, Madison
G Mr. Frederic A. Jacobs, Meriden
G Mr. Carl G. Schulz, Meriden
G Mr. Coulson H. Squiries, Madison
S Mrs. Charles I. Stephenson, New Haven
G Mr. William Thomson, Stamford
G Mrs. Troy Westmeyer, Stamford
G Mrs. Frances H. Winkler, Woodbridge

REGION 2

New York

- G RVP, Mr. Harry B. Kuesel, Greenvale
S Mr. Merton Brownell, Mt. Upton
G Mrs. Wells E. Burton, Greene
H Mr. Fred E. Cassebeer, West Nyack
G Dr. Irwin A. Conroe, Slingerlands
G Mr. Albert F. DeGroat, Brockport
G Mr. La Verne Dillenbeck, Schenectady
G Mrs. Harry L. Edwards, Massapequa
G Miss Mary Pat Engel, Kenmore
G Mr. Arthur Faulds, Amsterdam
H Mr. Paul F. Frese, White Plains
G Mr. James Gristwood, Phoenix
G Mrs. Jane I. Hall, No. Syracuse
G Mr. Elston K. Herrald, Baldwinsville
G Mrs. Thomas Higgins, Syosset
H Mr. Thomas E. Jacoby, Oakfield
G Mrs. William P. Liebegott, Bellmore
G Dr. William G. McGarvey, Oswego
G Mrs. William G. McGarvey, Oswego
G Mr. Daniel J. McNamara, Syosset
G Mr. Robert Milner, North Collins
G Mr. William H. Peck, Oyster Bay
G Mrs. John M. Price, New City
G Mrs. O. F. Quist, Spring Valley
H Dr. L. F. Randolph, Ithaca
G Mr. Robert H. Savage, Newburgh
G Mr. Raymond L. Scheele, Westbury
S Mr. James Stevens, Greenville
G Mr. Herman E. Story, Freehold
S Mr. John Swantak, South Kortright
G Mr. Irwin R. Taylor, Fulton
G Mrs. Carleton Van de Water, New Paltz
G Mr. George Paul Watts, Armonk
G Mr. E. Freeman Yendall, Kenmore
G Mrs. Dusan Zezelic, Massapequa Park
G Mrs. Clinton Ziems, West Monroe

REGION 3

Pennsylvania

- G RVP, Mr. William T. Hirsch, Haverstown
S Mrs. William E. Chambers, Merion Station
G Mrs. E. A. Chariott, Moylan
G Mr. Norman R. Clouser, Reading
G Mrs. J. W. Dougherty, Pittsburgh
G Mrs. Robert J. M. Gantz, New Hope
G Mr. Russel S. Groff, New Holland
S Mrs. Eugene G. Hamill, Hollidaysburg
G Mrs. William P. Hill, Allison Park
E Mrs. John H. Hoffman, Kenneth Square
G Mr. Maxwell W. Hunter, Hollidaysburg
G Mrs. Grant Kegerise, Reading
G Mrs. Richard P. Kegerise, Temple
S Mrs. Gustave E. Landt, Norristown
S Mr. John C. Lyster, Clifton Heights
G Prof. Larry P. Mains, Media
G Miss Sophia M. Moiles, Johnstown
G Mr. A. Edward Murray, Levittown
G Mr. Albert E. Murray, Levittown
G Mr. William Newhard, Quakertown
H Mrs. R. Moore Price, New Hope
G Mrs. Frank Prosky, Pittsburgh
G Mrs. Herbert Quick, Milford
G Mrs. Elizabeth H. Rowe, Pittsburgh
G Mr. Clayton H. Sacks, Collegeville
G Mrs. Theodore R. Shiner, Nescopeck
G Mr. Paul R. Smith, Sanatoga
S Mrs. Guy E. Stevens, Middlebury Center
G Mr. Raymond Thomas, Saltillo
G Dr. Frank A. Walchak, Lansdowne
G Mr. Jack Weber, Yeadon
H Dr. John C. Wister, Swarthmore

Delaware

- G Mrs. Frank W. Hankins, Smyrna

REGION 4

North Carolina

- G RVP, Mr. Frank Sherrill, Davidson
G Rev. R. L. Alexander, Washington
G Mrs. B. J. Brown, Charlotte
G Mr. John Dughi, Raleigh
G Mrs. Elizabeth Farrar, Mt. Holly
G Mrs. Craven B. Helms, Monroe
S Mrs. Hubert Johnston, Jamestown
G Mrs. Sentelle Jones, Rocky Mount
G Mr. Ralph E. Lewis, Durham
H Mr. C. C. O'Brien, Greensboro
G Mrs. C. C. O'Brien, Greensboro
G Mrs. D. W. Parham, High Point

Maryland

- G Mrs. Elton H. Bounds, Mardella Springs
G Mr. Ivan Richmond, Silver Spring

Virginia

- G Mr. William T. Allen, Newport News
G Mr. Weldon W. Ballard, Chesapeake
S Mrs. F. Allen Brown, Roanoke
G Mrs. R. E. Crumpler, Roanoke
G Mrs. J. M. Davidson, Rockbridge Baths
G Mrs. Guy Kirby, Norfolk
G Dr. Anne L. Lee, Norfolk
G Mr. J. E. Lynn, Jr., Buena Vista
G Mrs. John McCoy, Roanoke
S Mr. Louis McDonald, Lynchburg
G Mrs. Robert L. Munn, Virginia Beach
G Mrs. Nelson O. Price, Blacksburg
G Mrs. A. W. Rice, Roanoke
S Mrs. Charles F. Roberts, Norfolk
G Mr. Fred Stephenson, Roanoke
G Mrs. F. G. Ward, Virginia Beach
G Dr. Lloyd Zurbrigg, Radford

West Virginia

- S Mr. Earl Browder, St. Albans
G Mrs. J. R. McCracken, Walker
G Mrs. W. J. McLaughlin, Lewisburg
G Mrs. Roberta McMullen, Parkersburg

REGION 5

Georgia

- S RVP, Mrs. Vivian Buchanan, Atlanta
G Mrs. Maurice C. Abercrombie, Palmette
G Mrs. W. P. Allen, Atlanta
S Mr. Milton W. Blanton, Atlanta
S Mr. Carl Carpenter, Savannah
G Mrs. Roy Carter, Gainesville
G Mr. James Duren, Atlanta
G Miss Helen Estes, Gainesville
S Mrs. Drew Ferguson, West Point
G Mr. Johnson B. Hale, LaGrange
G Mrs. Johnson B. Hale, LaGrange
E Mrs. Willie Rice Hurst, Marshallville
G Mrs. Clifford Lowry, Atlanta
G Mrs. Lucia McKay, Rome
G Mrs. E. Fay Pearce, Atlanta
S Mr. M. Boydsten Satterfield, Atlanta
S Mrs. Margaret Tolleson, Atlanta
G Mr. Harry Turner, Atlanta
E Mrs. J. W. Weaver, Rome

Florida

- G Mr. Charles Stewart, Orlando

South Carolina

- G Mrs. C. C. Chapman, Williston
E Mrs. W. D. Collins, Edgemoor
S Dr. Harvey Hobson, Clemson
G Mrs. John S. Harley, Orangeburg
G Mrs. Corine D. Johnson, Cayce
G Mr. Charles Laughinghouse, Columbia
G Mrs. Charles Laughinghouse, Columbia
G Mrs. B. F. Martin, Columbia
E Mrs. Gilbert H. Rowe, Columbia
G Mrs. Walter S. Suber, Whitmire
G Mrs. Ernest R. Thayer, Spartanburg

REGION 6

Indiana

- G RVP, Mrs. Jeff Zuercher, Portland
G Mrs. Adda E. Ayres, Redkey
G Mrs. James Crist, Franklin
G Mrs. Paul Dunbar, Indianapolis
G Mrs. Robert Edwards, Indianapolis
G Mr. Bernard Hobbs, Noblesville
G Mrs. Bernard Hobbs, Noblesville
G Mrs. Oscar Keith, Fairmount
S Mr. Forrest V. McCord, Muncie
G Mr. Daniel Overholser, New Albany
G Mrs. Daniel Overholser, New Albany
G Mrs. Lucille Pence, Indianapolis
G Mrs. Noel E. Proctor, Fairmount
G Mr. Earl R. Roberts, Indianapolis
G Mrs. Earl R. Roberts, Indianapolis
G Mr. Raymond G. Smith, Bloomington
G Mr. Clarence Swearengen, Terre Haute
G Mr. Raymond Thomas, Indianapolis
G Mr. Harold Van Treese, Indianapolis
H Mr. Walter Welch, Middlebury
G Mr. Robert Welshans, Indianapolis
H Miss Mary Williamson, Bluffton

Michigan

- H Mr. Jay C. Ackerman, Lansing
S Mrs. Harry L. Arminger, Southfield
S Mr. Bennett S. Azer, Mio
S Mrs. Carl Bacon, Kalamazoo
G Mrs. Albert Blaine, Dearborn
G Mr. John L. Briggs, Kalamazoo
S Mr. J. Nelson Brown, Bloomfield Hills
E Mrs. Edwin R. Crosby, Flint
G Mr. Robert Damoth, Southfield
E Mr. Earl A. Fairman, Flint
G Mr. Arthur Hazzard, Kalamazoo
G Mrs. Lila Howland, Morrice

G Mrs. Clarence Maynard, Royal Oak
 G Mr. Ronald F. Miller, Kalamazoo
 H Mr. Charles E. Morgan, Flint
 E Mrs. George P. Morgan, Saginaw
 G Mrs. Chester Robarts, Whittemore
 G Mrs. Edward Robinson, Lansing

G Mr. Ernest L. Shantz, Fairview
 G Mr. William D. Simon, Garden City
 G Dr. H. E. Viergutz, Farmington
 E Mrs. Orwin Wilhelmsen, Livonia
 G Mr. Frank A. Williams, Kalamazoo

Ohio

S Dr. Raymond C. Allen, Mansfield
 G Mr. Willard Barrere, Akron
 G Mr. Myron C. Beard, Akron
 E Mrs. Frank A. Biggio, Steubenville
 S Miss Olive Bowman, Woodville
 E Mr. Paul Brink, Milan
 G Mr. Paul Dillery, Bellevue
 G Mr. Marion Dow, Crestline
 G Mr. Lee Eberhardt, Springfield
 G Mr. Harry Hanna, Burbank
 G Mr. L. P. Irvin, Oxford
 E Mrs. Joseph Kerekes, Bedford
 G Mr. James E. McClintock, North
 Olmsted
 S Mrs. James E. McClintock, North
 Olmstead

G Mr. Steve Moldovan, Avon
 S Mrs. Carl W. Naas, Celina
 G Mr. Z. Ransom Prentiss, Akron
 E Miss Pauline Reindl, Crestline
 G Mr. John D. Rusk, Jr., Bay Village
 G Mrs. C. W. Schmalstig, Dayton
 S Mrs. Herbert Shinkle, St. Marys
 G Mr. Edward Siegling, Gahanna
 G Mrs. Harold Slessman, Willard
 G Mr. Fred Taylor, Masury
 E Mrs. Frederick Thaler, Mansfield
 E Mrs. E. D. Warner, Brockville
 H Mr. Donald G. Waters, Elmore
 G Mr. Vincent C. Wiley, Columbus
 G Mr. Anthony Willott, Cleveland
 G Mrs. Anthony Willott, Cleveland

REGION 7

Kentucky

G RVP, Franklin Tice, Lexington
 A Mr. James W. Alexander, Lexington
 G Mrs. James W. Alexander, Lexington
 G Mr. Franklin P. Brewer, Lexington
 G Mrs. J. Robert Burns, Louisville
 S Mrs. Anna M. Dodson, Louisville
 G Mrs. Reed Elliott, Lexington
 A Mrs. D. F. Hill, Lexington

G Dr. Hubert C. Mohr, Lexington
 S Dr. Joseph B. Parker, Jr., Lexington
 G Mrs. Goebel Porter, Lexington
 G Mr. Henry Rabe, Ft. Mitchell
 G Mrs. V. E. Teeter, Louisville
 G Mrs. A. J. Vogt, Louisville
 G Mrs. Ann Willenbrink, Louisville

Tennessee

G Mrs. Nathan Bauman, Memphis
 S Mr. W. T. Bledsoe, Fayetteville
 G Mrs. W. T. Bledsoe, Fayetteville
 E Mrs. Stanley Boren, Lewisburg
 G Mr. Joe Brinkerhoff, Memphis
 H Mr. Sam Y. Caldwell, Nashville
 S Mr. Robert S. Carney, Memphis
 G Mrs. E. F. Crenshaw, Memphis
 G Chaplain C. S. Cunningham, Mur-
 freesboro
 G Mrs. Ray M. Dalrymple, Sr., Memphis
 G Mr. Ben Fonville, Memphis
 H Mrs. Edwin R. Fox, Memphis
 G Mr. A. E. Galyon, Knoxville
 S Dr. Frank B. Galyon, Knoxville
 G Mrs. Edgar Green, Lewisburg
 G Mr. C. H. Gunn, Memphis

G Mrs. Vivian G. Hill, Knoxville
 G Mrs. O. W. Lyle, Chattanooga
 G Mr. Luther B. Martin, Memphis
 G Mrs. R. N. Miller, Memphis
 G Mrs. Guy Moran, Knoxville
 G Mr. H. W. Neubert, Knoxville
 G Mrs. Hyman Pannell, Memphis
 G Mrs. Adelaide Peterson, Nashville
 G Mr. E. B. Pittard, Memphis
 G Mrs. R. G. Ross, Memphis
 S Mrs. Reuben Sawyer, Memphis
 G Mr. Jake H. Scharff, Memphis
 G Mrs. Shirley Sides, Memphis
 G Mrs. J. D. Stovall, Memphis
 G Mrs. Edward Toulon, Memphis
 A Mr. Philip A. Williams, Rockvale
 H Mr. Jesse E. Wills, Nashville

REGION 8

Wisconsin

G RVP, Mr. Clarence Protzmann, Mil-
 waukee
 G Mrs. Peter Baukus, West Allis
 S Mr. Arthur Blodgett, Waukesha
 G Mrs. Arthur Blodgett, Waukesha

G Mrs. H. W. Goodrick, Brookfield
 G Mrs. Edward G. Miller, Milwaukee
 G Mrs. George Ney, Milwaukee
 G Mr. Robert Reinhardt, New Berlin
 S Mrs. Robert Reinhardt, New Berlin

G Mrs. John E. Troka, Milwaukee
G Mrs. Edna Yunker, Taycheedah

G Miss Nadine Yunker, Taycheedah

Minnesota

S Mr. Grenville P. Gable, Minneapolis
G Mr. Glenn F. Hanson, Minneapolis
G Mr. Urban P. Ipsen, Minneapolis
G Mrs. Greta Kessenich, Hopkins
G Mrs. George F. Lankow, Minneapolis
G Mrs. D. C. Messer, Excelsior
G Rev. William P. Rossiter, Fairmont
S Mr. Wilbert G. Sindt, Stillwater
G Mrs. Alice Stenoien, Minneapolis
G Mrs. Clifford Stover, Minneapolis
G Mrs. Tom D. Wright, Minneapolis

REGION 9

Illinois

G RVP, Mr. D. Steve Varner, Monticello
S Mr. Fred Bond, Albion
S Dr. C. E. Branch, Piper City
G Mr. Harley E. Briscoe, White Hall
G Mr. John C. Brown, Collinsville
G Mr. Thomas J. Buckley, Chicago
G Mr. W. C. Carter, Herrin
S Mrs. Fred H. Clutton, Highland Park
G Mrs. Clyde Cox, Eldorado
G Mr. Henry Danielson, Chicago
G Mr. Edwin T. Drake, Park Ridge
G Mrs. Edwin T. Drake, Park Ridge
G Mrs. Victor DuJardin, Addison
H Mrs. William G. Dumont, Evanston
H Mr. Orville W. Fay, Northbrook
H Mr. Hubert Fischer, Hinsdale
G Mr. Ferris G. Gaskill, Barrington
H Mr. Richard Goodman, Riverside
G Mrs. R. E. Greenlee, Chrisman
G Mrs. William Hagberg, Westmont
S Mrs. John Harrell, Aurora
H Mrs. W. J. Hinkle, Marion
G Mr. Lerton W. Hooker, Lombard
G Mr. G. E. Hubbard, DeKalb
G Mr. Leonard Jugle, Elmhurst
G Mr. Sherman A. Kindell, Maywood
G Mrs. Frank J. Lang, Hodgkins
G Mr. George Livingston, Earlville
G Mrs. Dorothy F. McKemie, Benton
G Mr. James E. Marsh, Chicago
G Mr. James Mason, Chicago
G Mrs. Mildred B. Midjaas, Carbondale
G Mrs. L. F. Murphy, Mt. Vernon
G Dr. Jesse L. Pickard, Benton
G Mrs. Jesse L. Pickard, Benton
H Bro. Charles Reckamp, Techny
G Mrs. Frieda M. Redembo, Smithboro
G Miss Marilyn J. Redembo, Smithboro
A Mrs. John Reider, Downers Grove
S Mr. Nathan H. Rudolph, Aurora
G Mr. Richard Sanders, Wheaton
G Mrs. E. P. Sawyer, Urbana
A Mr. Ralph Schroeder, Warrensburg
G Mrs. C. J. Sheaff, Ottawa
A Mr. Marvin Shoup, Kankakee
A Mr. Richard J. Sloan, Gurnee
G Mr. Walter W. Sir, Oak Park
G Mr. John M. Thompson, Springfield
G Mr. James Tucker, Centralia
S Mr. Edward E. Varnum, Villa Park
G Mrs. Edward E. Varnum, Villa Park
A Mr. W. M. Westfall, Chicago

REGION 10

Louisiana

G RVP, Mr. Charles W. Arny, Jr., Lafayette
G Miss Alice Arceneaux, Lafayette
S Miss Marie Caillet, Lafayette
H Mrs. Walter Colquitt, Forbing
G Mrs. W. E. Conger, Arcadia
G Mr. Claude W. Davis, Baton Rouge
E Mrs. Roy Davis, Shreveport
E Mrs. Robert Eberhardt, Sr., Shreveport
E Mrs. Erwin Jordan, Alexandria
H Mr. W. B. MacMillan, Abbeville
G Mrs. Ruth Noel, Shreveport
G Mrs. L. L. Robinson, Shreveport
G Mr. Nolan J. Sahuc, Lafayette

REGION 11

Idaho

G RVP, Mrs. Don Holtz, Kellogg
G Mrs. Floyd Bandy, Twin Falls
A Mr. Don Chadd, Twin Falls
S Mrs. Ed Conrad, Buhl
G Mrs. Hazel Hargis, Boise
G Mrs. E. J. Henke, Boise
E Mrs. J. C. Hickenlooper, Preston
S Mr. Robert L. Jensen, Montpelier
S Mrs. Alfred Kramer, Castleford
G Mr. Neil Mogensen, Fruitland
S Mrs. Ralph S. Nelson, Coeur d'Alene
A Mrs. Victor Nelson, Twin Falls
S Mrs. Estelle Ricketts, Jerome
G Mrs. Carl Smith, Lewiston
S Mrs. S. W. Smith, Twin Falls
S Mrs. Glen Suiter, Eagle
S Mrs. Wilma Vallette, Declo

Montana

- A Mrs. Duane Cass, Missoula
A Mrs. Robert Gray, Missoula
G Mrs. Marvin Hart, Missoula
S Dr. Homer Metcalf, Bozeman
E Mrs. S. F. Pimperton, Ft. Benton
G Mrs. W. R. Walters, Great Falls
E Mrs. Elizabeth Zimmerman, Billings

Wyoming

- G Mrs. C. Arvid Nelson, Laramie
S Mrs. Lowell Storm, Chugwater

REGION 12

Utah

- G RVP, Mr. Bion Tolman, Salt Lake City
E Mrs. P. H. Barkdull, Logan
G Mrs. Townley Brian, Salt Lake City
G Mrs. David Burton, Salt Lake City
S Mrs. Luzon Crosby, Orem
G Mrs. T. O. Daley, Ogden
G Mrs. C. M. Decker, Ogden
G Mrs. Louis Deru, Ogden
G Mr. John C. English, Salt Lake City
G Mrs. John C. English, Salt Lake City
G Mr. J. R. Hamblen, Roy
S Mrs. J. R. Hamblen, Roy
G Mrs. H. C. Hansen, Logan
H Mr. Fisher Harris, Salt Lake City
G Mrs. Ray Jensen, Logan
G Mrs. M. S. Johnson, Salt Lake City
G Dr. Odell Julander, Provo
S Mr. Carl A. Larsen, Salt Lake City
G Mr. George Mayberry, Provo
G Mr. W. E. McClure, Roy
E Mrs. R. W. Middlemiss, Salt Lake City
H Mr. Tell Muhlestein, Orem
G Mrs. Thomas Osguthorpe, Salt Lake City
G Mr. Les Peterson, Salt Lake City
S Mr. C. M. Reynolds, Bountiful
G Mrs. C. M. Reynolds, Bountiful
S Mr. Raymond C. Solomon, Salt Lake City
G Mr. Herbert Spence, Ogden
G Mrs. Merlin Tams, Wellsville
G Mrs. Herman Theurer, Wellsville

REGION 13

Washington

- G RVP, Mr. Herbert M. Parker, Richland
G Mr. Foster H. Allen, Washougal
G Mrs. G. D. Bletcher, Spokane
G Mr. Donald J. Boen, Walla Walla
G Mrs. C. T. Bromley, Richland
G Mrs. Rex P. Brown, Kirkland
S Mrs. Tom H. Brown, Walla Walla
S Mr. Tom Craig, Hubbard
G Mr. Charles F. Carper, Seattle
G Mr. Norris W. Carter, Spokane
S Mr. Merle Daling, Waterville
G Mr. B. LeRoy Davidson, Seattle
G Mrs. John C. Flagler, Seattle
G Mrs. John W. Fox, Kennewick
G Mrs. Alexia Gerberg, Nachez
G Mrs. T. C. Hobart, Greenacres
G Dr. Frederick R. Judy, Spokane
G Mr. W. G. Kellie, Pasco
G Mr. J. H. Kohl, Kennewick
G Mrs. Maxine G. Maynard, Puyallup
G Mrs. W. L. Mize, Bellingham
G Mr. Austin Morgan, College Place
G Mrs. Walter Noyd, Wenatchee
S Mr. Gordon Plough, Wenatchee
G Dr. Richard S. Rosenfels, Richland
G Mrs. J. D. Ruggles, Bellingham
H Mrs. Hazel Schmelzer, Walla Walla
G Mrs. S. M. Sisley, Spokane
S Mrs. Jake L. Smith, Waitsburg
G Mrs. William F. Snell, Outlook
G Mrs. Harriet Sparger, Clarkston
G Mrs. Lewis Trout, Moses Lake

Oregon

- G Mr. Ronald J. Beattie, Canby
H Mr. R. M. Cooley, Silverton
G Mrs. James N. Craig, Klamath Falls
H Mrs. Fred DeForest, Canby
G Mr. Larry Ernst, Silverton
G Mrs. Mabel Framke, Canby
S Mr. Bennett C. Jones, Portland
H Dr. H. E. Kleinsorge, Silverton
G Mr. L. V. Kohler, Corvallis
H Mr. Walter Marx, Boring
G Mrs. Marjorie Roark, Grants Pass
H Mr. Bernard Schreiner, Salem
H Mr. Robert Schreiner, Silverton
S Mr. George Shoop, Portland
S Mr. Chet Tompkins, Canby

REGION 14

Northern California

- G RVP, Mr. Glenn F. Corlew, Walnut Creek
G Mr. Willard Akers, Healdsburg
G Mrs. Ermah F. Ballard, Redding
G Mr. Robert M. Brown, Kensington
G Mrs. Sam Burnett, Sacramento
G Mrs. E. V. Butler, Sacramento
G Miss Lois Carnahan, Carmichael
G Miss Mona Carnahan, Carmichael
G Mr. Ralph B. Coleman, San Jose
G Mrs. Edith Coscarelly, San Jose
H Mr. Frank Crouch, Berkeley
S Mrs. Peg Dabagh, Berkeley
G Mr. Sidney B. Du Bose, Stockton
G Mrs. Robert L. Dunn, North Highlands
G Mr. Philip Edinger, Cloverdale
G Mr. George E. Esperson, San Jose
G Mrs. Hilda F. Fail, Yuba City
G Mr. Thomas W. F. Foster, Walnut Creek
H Mr. Larry Gaulter, Castro Valley
G Mrs. Larry Gaulter, Castro Valley
G Mr. Ralph Geyer, Mountain View
G Mr. Joseph J. Ghio, Santa Cruz
G Mr. James M. Gibson, Porterville
G Mr. Tommy D. Graham, Antioch
G Mr. Ben R. Hager, Stockton
G Mrs. Alleah S. Barnes Haley, Berkeley
G Mrs. Marilyn J. Holloway, Sacramento
G Mr. Frank E. Hutchings, San Leandro
G Mrs. James Ingle, Tulare
G Mr. Robert E. Jerrell, Orinda
S Mrs. Ethel A. Johnson, Fremont
G Mr. George W. Johnson, Fremont
G Mr. Keith Keppel, Stockton
G Mr. Milton W. Lazansky, Lafayette
G Mrs. Clifford Lee, Porterville
G Mrs. Violet Lorenz, Chico
G Mrs. Frank Luevano, San Jose
G Mr. Walter F. Luihn, Hayward
G Mr. Paul Maxim, Redding
E Mrs. Paul Maxim, Redding
A Mrs. Duane E. Meeks, Concord
G Mrs. William Messick, Lafayette
G Mrs. R. Nelson Nicholson, Stockton
S Mr. Roy Oliphant, Berkeley
G Dr. Maurice A. Peel, San Jose
G Mr. Donald L. Peterson, Campbell
S Mr. Carl A. Quadros, Sacramento
G Mr. Fremont F. Radcliffe, Pittsburg
H Miss Clara B. Rees, San Jose
S Miss Ruth Rees, San Jose
G Mrs. Bernice R. Roe, San Jose
S Mrs. A. L. Romer, Ukiah
G Mrs. Virginia L. Ross, Roseville
G Mr. W. B. Schortman, Porterville
G Mr. Frank Scott, San Jose
G Miss Hazel Stewart, San Jose
G Mrs. Mona Stipp, Santa Rosa
E Mrs. Eleanor Vennum, San Jose
G Mr. John H. Weiler, Fresno
G Mr. Dennis A. Wilkie, San Jose
G Mr. Vernon D. Wood, Berkeley

Nevada

- G Mr. Joseph R. Sanfratel, Las Vegas

REGION 15

Southern California

- G RVP, Mr. Arthur B. Day, Chula Vista
G Mr. Thornton B. Abell, Santa Monica
G Mrs. Kenneth B. Anderson, La Canada
A Mrs. Walter Bunker, San Diego
G Mrs. N. R. Carrington, San Diego
S Mrs. Ralph Conrad, Van Nuys
G Mrs. D. D. Cook, North Hollywood
S Dr. Clarke Cosgrove, San Gabriel
A Mr. Duncan Eader, Arcadia
A Mr. Walker Ferguson, Escondido
G Mrs. Charles R. Foster, Sierra Madre
G Mrs. Harry B. Frey, Riverside
G Mr. William J. Gunther, Del Mar
G Mrs. Dick Hadley, Arlington
G Mrs. Bernard L. Hamner, Perris
G Mrs. William Hawkinson, La Puente
H Mrs. Elsie Heimer, Van Nuys
G Mr. Raymond E. Hiser, Spring Valley
S Mr. Russell Hopson, San Gabriel
G Mrs. Mary H. Hoskins, Bakersfield
G Mrs. Margaret Howard, Escondido
A Mr. Robert P. Hubley, La Mirada
G Mrs. Clarence Joris, San Bernardino
G Mrs. L. Brooks Lawson, Valley Center
H Dr. Lee W. Lenz, Claremont
S Mrs. Henry Leon, Calimesa
S Mrs. David W. Lyon, Northridge
G Mrs. Frank McCown, Holtville
G Mrs. George W. Nelson, Arlington
S Mrs. Edward Owen, Leucadia
H Mr. W. A. Payne, Santa Ana
G Mr. August Phillips, Inglewood
G Mrs. B. D. Pilley, Valley Center
G Mr. Jose Rivera, Fallbrook
G Mrs. George M. Roach, Los Angeles
G Mr. Mark E. Rogers, Yucaipa
G Mrs. Barbara Serdynski, Los Angeles
G Mrs. Joseph Shirley, Los Angeles
E Mr. George Stambach, Pasadena

H Mrs. Otto Steutzel, Woodland Hills
A Mr. Harry A. Tate, Sunnymead
A Mrs. John Tearington, Hawthorne
G Mr. Collie Terrell, Wasco

A Mrs. William L. Van Dusen, Descanso
H Mr. Marion R. Walker, Ventruea
G Mrs. Wayne W. Weaver, Lakeside

Arizona

G Mrs. Genevieve Jasper, Tucson
G Mr. Ralph A. Johnson, Phoenix
G Mrs. Virginia Mathews, Willcox
G Mr. Herbert McKusick, Globe

G Mrs. M. B. Morrow, Phoenix
G Mrs. Paul Orick, Phoenix
G Mrs. Mary Reed, Chandler
G Mrs. John W. Turner, Tucson

REGION 16

Canada

G RVP, Mr. Douglas Insleay, Montreal
H Rev. W. T. Corcoran, Stratford
G Mr. Donald V. Fritshaw, Hamilton
E Mrs. W. A. Harris, Toronto

E Mr. O. A. Kummer, Preston
G Mr. Bruce Richardson, Hannon
G Mrs. Alberta Richardson, Hannon
G Mr. M. D. Smith, Toronto

REGION 17

Texas

G RVP, Mr. L. E. Brooks, Iowa Park
A Mrs. Fred Acrey, Dallas
G Mrs. A. M. Aikin, Jr., Paris
G Mr. C. J. Andrews, Arlington
G Mrs. H. P. Ballengee, Phillips
G Mrs. Charles E. Benson, Lubbock
S Mr. Z. G. Benson, Wichita Falls
G Mrs. Joe L. Bergin, Dallas
G Mrs. H. C. Blevins, Fort Worth
G Mrs. J. Gordon Bristow, Big Spring
S Mrs. L. E. Brooks, Iowa Park
G Mrs. J. H. Burge, Denton
G Mrs. Lawrence Burt, Waco
G Mrs. E. F. Campbell, Morgan
G Mrs. R. L. Campbell, Sherman
G Mrs. E. S. Carter, Wichita Falls
G Mrs. Preston A. Childers, Temple
S Mr. W. R. Cochran, Dallas
G Dr. J. W. Collier, College Station
G Mr. Jim Coward, Waxahachie
G Mrs. Hugh Davis, Levelland
G Mrs. K. G. Davis, Chillicothe
A Mr. Robert Demory, Richardson
G Mr. C. P. Denman, Fort Worth
G Mrs. E. L. Derr, Chillicothe
G Mr. L. E. Flanagan, Fort Worth
G Mr. David J. Flesh, Jefferson
G Mrs. H. F. Fulkerson, Dallas
G Mrs. Doyle Gray, Belton
A Mr. Myron Guither, Grand Prairie
G Mr. Theodore G. Harris, El Paso
S Mr. H. H. Henkelman, Fort Worth

G Mr. Paul Horn, Fort Worth
G Mrs. Harley Jennings, Lubbock
G Mrs. L. O. Jordan, Dallas
G Mrs. Vernon H. Keesee, Lubbock
G Mrs. Tom C. Kelk, Ben Wheeler
G Mrs. Grady Knight, Lubbock
G Mrs. Jack Lawhorn, Temple
G Mr. W. D. Lee, Houston
S Mrs. Joe Leonard, Sr., Gainesville
G Mrs. E. E. Louthan, Lubbock
S Mr. M. W. Norton, Jr., Dallas
G Mrs. M. W. Norton, Jr., Dallas
G Mrs. Stayton Nunn, Houston
G Mr. William K. Patton, Matador
G Mrs. Edwin Pool, Brownwood
G Mrs. E. L. Raney, Dallas
G Mrs. Joe E. Reese, Brownwood
G Mrs. Elizabeth Reneau, Belton
H Mr. Guy Rogers, Wichita Falls
H Mrs. Guy Rogers, Wichita Falls
G Mrs. Les Rowland, Abilene
G Mrs. John C. Sexton, El Paso
G Mrs. H. D. Shields, El Paso
G Mrs. N. E. Stinson, Dallas
S Mrs. A. M. Tallmon, Nocona
G Mrs. Joe B. Thorn, Gordonville
G Mr. Charles L. Waltermire, Everman
S Mr. Roy E. White, Fort Worth
G Mrs. N. W. Williams, Fort Worth
G Mrs. Ruth Wilson, Brownwood
G Mr. Leon C. Wolford, Dallas

REGION 18

Kansas

G RVP, Mr. Russell Morgan, Parsons
S Mr. Orville Baker, Wichita
G Mr. George Bender, McPherson
A Mrs. George Bender, McPherson
S Mr. Roy Brizendine, Topeka
G Mrs. Roy Brizendine, Topeka
G Mr. W. F. Brown, Wichita

A Mrs. M. E. Christlieb, Severy
G Miss Mable Fitch, Shawnee Mission
A Mr. James W. Fry, Wichita
A Mrs. James W. Fry, Wichita
G Mr. Herbert Graves, Friend
S Mrs. Ervin Gruben, Scott City
G Mrs. Paul Hatcher, Emporia

G Mrs. Charles Heisz, Selden
 G Mrs. Charles Jendel, Wichita
 G Mr. Floyd Jones, Garden City
 S Rev. David Kinish, Atchison
 G Mrs. Russell Morgan, Parsons
 S John Ohl, Mulvane
 G Mr. Fred Paulsen, Wichita
 A Mrs. Fred Paulsen, Wichita
 A Mr. J. Donald Puett, Baxter Springs
 A Mrs. J. Donald Puett, Baxter Springs
 G Mrs. Richard Ramsey, Wichita

Missouri

G Mrs. Edward Arnoldi, Cape Girardeau
 G Mrs. Fletcher Bell, Rich Hill
 G Mrs. A. Bellegamba, Bridgeton
 S Mr. Clifford W. Benson, Chesterfield
 G Mr. Eugene Buckles, Sikeston
 S Miss Lily Buder, St. Louis
 S Mrs. Walter H. Buxton, St. Louis
 G Mrs. James Lee Chism, Festus
 G Mr. Bob Crockett, Joplin
 G Mrs. Bob Crockett, Joplin
 S Mrs. W. O. Fleck, Independence
 G Mr. C. L. Fondoble, Washburn
 G Mrs. C. L. Fondoble, Washburn
 S Mr. Allen Harper, Kansas City
 G Miss Annabel Hennrich, Ironton
 G Mrs. E. P. Kierferle, St. Ann
 G Mrs. Wallace Klemp, Farmington
 G Mr. M. J. McHugh, Kansas City
 G Mr. C. Robert Minnick, Kansas City

G Mrs. C. Robert Minnick, Kansas City
 G Mrs. Paul Newman, Ironton
 G Mr. O. D. Niswonger, Cape Girardeau
 G Mr. Marvin G. Olson, Webster Groves
 G Mrs. Marvin G. Olson, Webster Groves
 G Mr. Ray C. Palmer, Manchester
 S Mrs. Ray C. Palmer, Manchester
 G Mr. Victor Quesnel, Farmington
 G Mrs. Victor Quesnel, Farmington
 G Mrs. Fred Rentfro, Farmington
 G Mr. Elvan Roderick, Desloge
 G Mr. Harold Schaan, St. Louis
 H Mr. Carl C. Schirmer, St. Joseph
 H Mr. W. F. Scott, Jr., Ferguson
 S Mr. Herman J. Selle, Kansas City
 G Mr. S. G. Street, Independence
 S Mr. Elmer Tiemann, Frederickstown
 G Miss Gene Wild, Sarcoxie

REGION 19

New Jersey

G RVP, Mrs. Ira E. Wood, New Providence
 G Mrs. Elizabeth Aulicky, Martinsville
 G Mrs. A. L. Bellmer, Tom's River
 G Mr. Raymond J. Blicharz, Trenton
 G Mr. Franklin E. Carr, Bordentown
 G Mr. Joseph Gatty, Fair Lawn
 G Mr. Paul Hoffmeister, Westwood
 G Mrs. Paul Hoffmeister, Westwood

G Dr. Frederick J. Knocke, Readington
 G Mr. Bill Krasting, Cherry Hill
 G Mr. Melvin Leavitt, Whitehouse
 G Mr. Clement E. Reeves, West Cape May
 G Mr. Willard I. Rogers, Berkeley Heights
 H Mrs. F. P. Walther, Upper Montclair
 S Mr. Ira E. Wood, New Providence

New York

H Mr. Edwin Rundlett, Staten Island
 S Mrs. Kenneth D. Smith, Staten Island

REGION 20

Colorado

S RVP, Dr. John R. Durrance, Denver
 S Mr. O. T. Baker, Denver
 G Mrs. Don Edelman, Fort Morgan
 G Mr. John Hartman, Arvada
 G Mrs. Samuel L. Heacock, Denver
 G Mr. Joseph H. Hoage, Denver
 G Mrs. M. H. Hurlburt, Denver
 G Mrs. Thomas A. Johnson, Denver
 S Mr. Everett C. Long, Boulder

H Dr. P. A. Loomis, Colorado Springs
 G Mr. Thomas L. Magee, Littleton
 G Mrs. Ruth Pressey, Bayfield
 G Mr. Joseph O. Riley, Denver
 G Mrs. H. L. Shields, Bayfield
 G Mrs. Russell D. Spotts, Fort Morgan
 G Mrs. Ethel Weber, Denver
 G Mrs. Charles Wedow, Denver

REGION 21

Iowa

- | | |
|--------------------------------------|--------------------------------------|
| G RVP, Mr. Leo W. Framke, Blencoe | H Mrs. Ralph E. Ricker, Sioux City |
| S Mr. George Dubes, Sioux City | G Mr. Arthur E. Rowe, Mason City |
| S Mrs. B. E. Ellis, Ottumwa | G Mr. Kempton Settle, New Providence |
| S Mrs. J. G. Gutekunst, State Center | G Mr. Fred E. Spahn, Dubuque |
| G Mr. Floyd Helt, Sioux City | H Mr. Charles G. Whiting, Mapleton |
| G Mrs. L. N. Hockett, Marshalltown | G Dr. R. W. Wilder, Stanhope |

Nebraska

- | | |
|--------------------------------------|-------------------------------------|
| G Mr. Wayne Buckholz, Lexington | S Mrs. Lucille J. Kavan, Omaha |
| G Mrs. John D. Cox, Lexington | S Mr. W. M. Keeling, Falls City |
| G Mrs. J. N. Cox, Borfolk | H Dr. J. Arthur Nelson, Omaha |
| G Mr. Allen Ensminger, Lincoln | S Mrs. J. Arthur Nelson, Omaha |
| G Mrs. Arnold Freudenburg, Norfolk | G Mrs. N. S. Pederson, Norfolk |
| S Miss Hazel Grapes, Big Springs | G Mrs. C. V. Robertson, Chambers |
| G Mr. Larry Harder, Ponca | H Mr. Henry Sass, Omaha |
| G Mrs. A. J. Harvey, Lexington | G Mr. Arnold E. Schliefert, Murdock |
| G Mrs. Leon High, Lexington | G Mrs. Frank E. Skrdla, O'Neill |
| G Mr. Lester Hildenbrandt, Lexington | |

South Dakota

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| G Mr. John E. Griffin, Sioux Falls | SS Mr. Clifford Smith, Vermillion |
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REGION 22

Oklahoma

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| G RVP, Mr. Perry L. Parrish, Oklahoma City | G Mrs. Ed C. Kurtz, Walters |
| G Mr. Wiley Abshire, Guthrie | G Mrs. C. R. Mason, Edmond |
| E Mrs. Mary Barefoot, Lindsay | S Mrs. Helen McCaughey, Oklahoma City |
| G Mr. M. B. Bartley, Enid | G Mrs. J. B. McConnell, Tulsa |
| E Mrs. C. C. Clark, Sentinel | G Mr. Tom Munger, Jr., Enid |
| G Mrs. J. P. Crawford, Purcell | G Mrs. Ica Pierson, Lawton |
| G Mr. C. A. Cromwell, Jr., Oklahoma City | E Mrs. H. G. Plato, Oklahoma City |
| G Mrs. Howard Estes, Oklahoma City | S Mrs. Russell Pryor, Oklahoma City |
| G Mr. Marvin Fletcher, Yukon | G Miss Leah Ralls, Edmond |
| G Mr. W. G. Frass, Enid | G Dr. M. L. Saddoris, Cleveland |
| G Mrs. R. L. Gilbert, Lawton | G Mrs. M. L. Saddoris, Cleveland |
| G Mrs. H. V. Glitsch, Woodward | E Mr. Ted Schwachhofer, Muskogee |
| G Mr. Robert Henry, Ardmore | G Mr. Kenneth J. Shaver, Bethany |
| G Mrs. Robert Henry, Ardmore | G Mr. Perry L. Shelley, Oklahoma City |
| G Mr. Alva Hickerson, Tulsa | S Mrs. Iris Smith, Hitchcock |
| G Mrs. Alva Hickerson, Tulsa | E Mrs. Zip Smith, Oklahoma City |
| H Miss Eleanor Hill, Tulsa | S Mrs. Cyrus Stanley, Oklahoma City |
| G Mr. John Humphrey, Stillwater | G Mrs. James True, Oklahoma City |
| E Mrs. John E. Jennings, Wynnewood | E Mrs. J. J. Truscott, Shawnee |
| G Dr. W. E. Jones, Oklahoma City | E Mrs. Mike Van Meter, Bethany |
| G Mrs. C. E. Kenney, Tulsa | G Mrs. Rex White, Lawton |

Arkansas

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|---|-------------------------------------|
| E Mrs. Roscoe Blount, Little Rock | S Mrs. Zeh Dennis, Jr., Hot Springs |
| G Mrs. Earl Brandon, Bald Knob | G Mr. Richard Morgan, Little Rock |
| G Mr. Richard Butler, Little Rock | E Mr. Joe Saia, Helena |
| G Mr. Oren C. Campbell, N. Little Rock | S Mrs. Vay B. Sargo, Hot Springs |
| G Mrs. Oren C. Campbell, N. Little Rock | G Mr. Hoyt Smith, Little Rock |
| S Mr. Frank Chowning, Little Rock | G Mrs. Hoyt Smith, Little Rock |
| G Mr. Zeh Dennis, Jr., Hot Springs | G Mrs. Leo Whitten, N. Little Rock |
| | E Mrs. Tracy Witherington, Camden |

REGION 23

New Mexico

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|---|--------------------------------------|
| G RVP, Mrs. Nernard Lowenstein, Albuquerque | G Mrs. Alfred D. Kilbey, Albuquerque |
| G Mrs. Richard Bohannon, Albuquerque | E Mrs. James Kuykendall, Taos |
| G Mrs. T. H. Boswell II, Roswell | G Mrs. W. M. McGrath, Albuquerque |
| G Mrs. George Doolittle, Albuquerque | G Mrs. W. H. McKinley, Roswell |
| G Mrs. Irby Downey, Albuquerque | H Mrs. Earl Mount, Albuquerque |
| G Mrs. Earl Gould, Albuquerque | G Mr. Howard Shockey, Albuquerque |
| G Mrs. Dennis Hoilman, Albuquerque | G Mrs. Eugene Sundt, Albuquerque |
| G Mr. Frank Kalich, Albuquerque | G Mr. Ernest Wilson, Albuquerque |
| E Mrs. Earl Kaufman, Sante Fe | G Mrs. James R. Yocum, Albuquerque |

REGION 24

Alabama

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| G RVP, Mr. Joe M. Langdon, Birmingham | G Mrs. A. Russell Jolly, Sheffield |
| G Mrs. Ernest Batson, Florence | G Mrs. A. I. Kuykendall, Guntersville |
| G Mrs. Paul F. Boon, Birmingham | G Mrs. Joe M. Langdon, Birmingham |
| G Mrs. B. W. Branumn, Huntsville | G Mrs. Herman Lollas, Birmingham |
| G Mr. H. A. Brush, Birmingham | G Mrs. R. W. McLaney, Huntsville |
| G Mr. B. Howard Camp, Albertville | G Mrs. E. P. Miles, Birmingham |
| E Mrs. B. Howard Camp, Albertville | G Miss Nan Elizabeth Miles, Birmingham |
| E Mrs. William A. Cobb, Jr., Huntsville | G Mrs. Perry H. Morton, Gadsden |
| E Mrs. P. G. Cowden, Birmingham | G Mr. W. H. Ponder, Gadsden |
| E Mrs. Lester Fanning, Huntsville | G Mr. Herbert L. Sherrod, Tuscumbia |
| G Mrs. Ruth T. Fletcher, Gadsden | E Mr. Lester Sparks, Huntsville |
| G Dr. L. E. Fraser, Florence | G Mrs. R. P. Van Valkenburgh, Huntsville |
| G Mrs. Floyd Garner, Albertville | S Mr. Mel Wallace, Birmingham |
| G Dr. M. J. Hall, Huntsville | E Mrs. Mel Wallace, Birmingham |
| E Mrs. Alfred Hecht, Huntsville | G Mrs. Giles P. Wetherill, Huntsville |
| G Mrs. H. C. Hendricks, Birmingham | |
| E Mrs. George Johnson, Hueytown | |

Mississippi

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|------------------------------------|------------------------------------|
| G Miss Evelyn Barbour, Vicksburg | E Mrs. E. C. Ratliff, Jr., Clinton |
| G Mr. Halbert Cunningham, Crawford | G Mr. W. D. Shewmake, Greenwood |
| G Mr. Warren Greff, Sr., Jackson | E Mrs. W. D. Shewmake, Greenwood |
| E Mrs. Everette Hughes, Jackson | E Mrs. William H. Smith, Sartartia |
| E Mrs. Hugh Johnston, Vicksburg | E Mrs. J. Ellis Taylor, Starkville |
| E Mrs. E. M. LeBaugh, Columbus | S Mrs. H. P. Tipton, Horn Lake |
| G Mrs. A. Clark List, Jackson | G Mrs. Littleton Upshur, Jackson |
| E Mrs. Frank McCann, Jackson | E Mrs. B. L. Vincent, Meridian |
| G Mrs. A. K. Primos, Jackson | |

JUDGES IN OTHER COUNTRIES

England

- H Mr. H. Castle Fletcher, London
H Mr. H. Senior Fothergill, Kent
G Mr. H. R. Jeffs, Morden, Surrey
H Mr. Goeffrey L. Pilkington, Surrey
G Mr. L. W. Brummitt, Oxon

Italy

- G Dr. Gian Luigi Sani, Florence
G Mrs. Flaminia Specht, Florence

NATIONAL TEST GARDEN AWARDS

NINEVEH

BABBLING BROOK

NIGHT SONG

BLUE BOUNTY

HEATHER HALO

LITTLE BLACKFOOT

Keith Keppel

Keith Keppel

Walt Luhn

Mrs. Cora May Pickard

Mrs. J. R. Hamblen

Mrs. Mattie Reinhardt

KETCHUM MEMORIAL GARDEN

Jake H. Scharff

There was only scattered bloom in the Ketchum Memorial Iris Garden in the spring of 1954. This was understandable because the first irises were not planted there until Armistice Day in November 1953.

Mrs. Morgan Ketchum, for whom the garden is named, was the niece of Dr. James H. Kirkland, Chancellor of Vanderbilt University for forty-four years, and one of the early members and hybridizers of AIS. His COPPER LUSTRE was the winner of the American Dykes Award in 1938. From Dr. Kirkland, Mrs. Ketchum acquired her first irises. She added to these the very latest introductions and soon her garden became a mecca in Memphis for all who wished to see her very choice iris collection.



Shortly after her death in the summer of 1953, her son and his wife offered her entire collection, consisting of some 2,500 rhizomes, to the City of Memphis as a beginning of the development of an iris garden for the benefit of the public. The City accepted this offer and agreed to provide a five-acre plot at Audubon Park, which was then a recent acquisition to its park system. It agreed to furnish the labor to make and maintain the beds needed and to furnish whatever shrubs and trees indicated by the plans of the landscape architect, selected by the local iris group. It provided, however, that a local iris society be responsible for the collection of irises and for adding new varieties and making other improvements and innovations.

Since the iris enthusiasts of Memphis at that time had no formal group,

a society was organized and named the Memphis Area Iris Society. One condition was that any member must also be a member of the American Iris Society. This provision has continued throughout the years.

A committee of six, later increased to nine, was appointed to plant the irises, to make plats of each bed and to see that the irises were correctly identified and labeled. They also were responsible for their division or removal, and the addition of new ones when acquired. As the years went by, member interest in the garden increased. In 1961, an amendment to the by-laws of the Memphis Area Iris Society was passed. Today, the committee is composed of members of the Memphis Area Iris Society who are actively in charge of one or more of the iris Beds in the KMIG, the garden statistician, and the President of the MAIS. A drouth in 1953 and the worst freeze ever experienced in Memphis, on March 25, 1955, meant that the shrubs and trees had to be replanted. By 1955, water pipes had been laid in the garden, within easy reach of each bed. Brick walks, according to the landscape architect's design, had been laid.

Since then, spring bloom with few exceptions has been outstanding. The garden each spring is now a "must" to Memphians and to many other people within 150 miles of Memphis to visit. Over 10,000 visitors view the bloom each season.

Approximately one-third of the beds are dug each year, with fresh dirt hauled in to replace the old, and the beds are replanted. Older irises are discarded as newer, improved irises in the various color classifications are introduced.

From the inception, the committee was determined to make the garden interesting, not only for the public visitors, but also for the membership of the AIS.

At the very beginning, the garden had its Dykes Rows, the French and English on one side of the entrance walk and the American Dykes on the other side.

Next, four beds in the center of the garden were planted with the one hundred Popularity Poll winners. The Award of Merit winners for the past four years are grown in two additional beds.

Four small beds contain the winners of the Judges Choice Award. These irises are grown a year beyond their eligibility, so that they may be seen on established clumps.

In addition to the tall bearded irises grown, there are sections devoted to median, the spuria, the Siberian, Louisiana and Japanese irises. The garden is an official Display Garden for median and the spuria irises.

A Historical Bed was added in 1966. While our garden could find space for only fifty of these, the committee felt its obligation to preserve some of them from the Rutger University Collection and hoped that other public gardens will feel this same obligation.

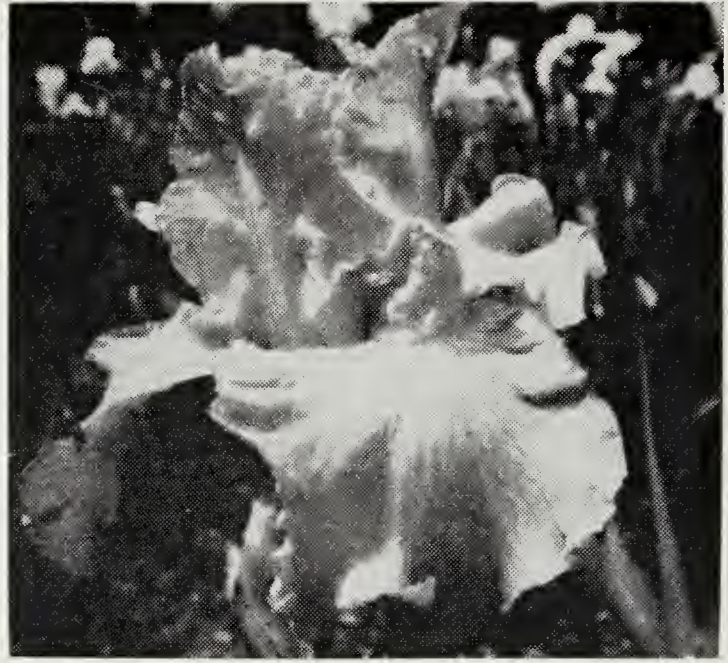
Memphis has had the privilege of hosting the Region 7, spring meeting for a number of years. One of the attractions is the Regional Test Garden, also located in the Ketchum Memorial Iris Garden. The regional hybridizers have been most cooperative. Each hybridizer may send up to three seedlings each year to the test garden. These are assigned a Test Garden number. Within the past two years, four of these seedlings have received the RTG Award.

There are older public gardens than the Ketchum Memorial Iris Garden. However, many of our members in Memphis predicted that the member interest in the garden would wane and predicted a three-year span for the life of the garden.

Next spring, we invite all members of the AIS to join in our Fifteenth Birthday Celebration and particularly the spring meeting of Region #7, which will be held in Memphis, Saturday and Sunday, May 3 and 4, 1969.



BABY SHOWER
(Ghio '67)



(Photos by Keppel)

ORCHID BROCADE
(Rudolph '65)

THE HIGHWAYS BLOSSOM

Bennett C. Jones

We in Oregon are not hesitant to tell the world of the beauty that surrounds us. We are a little proud, too, of the planning that went into the system of uncluttered roads and highways which take us through farmlands, deserts, the mountains, and down to the rugged seashore where waters run blue and cold.

Our part of the freeway which runs from Canada to Mexico begins at the Columbia River, bordering Portland, and ends at the California line—three hundred miles away. Through the fertile Willamette Valley, past the capital city of Salem, the university city of Eugene, to the timberlands and sawmills of Roseburg. Then, on to the great hunting and fishing areas of Grants Pass, the pear orchards of Medford, the Shakespearian Festival at Ashland and into California; a sign there reads "Los Angeles City Limits." Those people are a little proud, too.

When the freeway was completed, the Highway Commission was ready with its plans to landscape the well-graded banks, most of them extending a hundred feet or more on either side of the roads.

Native firs, hemlocks and pines, some very beautiful ones, are the contour relief for masses of azaleas, rhododendros, broom and irises, one hundred thousand of them!

In May, when the irises are in flower, the motorist, as he passes alongside the Schreiners' garden, is treated to a view of their large planting,

which is impressive indeed. It was impressive to then Governor, now Senator Mark Hatfield, who suggested to those on the Commission that irises might be used to advantage in roadside planting. After consultation with the major growers, it was decided they would be. Contracts were let for one hundred thousand rhizomes.

It was suggested by the growers that plantings should be in bold masses; fifty percent of the colors should be dark as a background for the light colors, and that groups of each color should be large enough to be distinct.

Most of the plantings were made on the graceful curves and slopes of the interchanges where passengers in automobiles leaving or entering the freeway have more time to view them. They were planted boldly in beds up to two hundred feet long and fifty feet wide. Many plantings are smaller, of course.

How has it worked out? Just fine, so far. As two-year clumps last spring, early and late varieties provided a long season of bloom. The use of fifty percent dark color permitted the planting to be seen from a distance rather than until almost upon it, and the grouping of a number of plants of one color permitted that color to be stronger. In one area where a planting of mixed colors was made, possibly extra plants, the effect was weak and uninteresting. Stalks were removed after the flowering season; the beds were mulched with sawdust to keep weeding to a minimum. We will watch the results of this with interest. Through the summer, the color and form of the foliage was pleasant in contrast to the deeper greens of most other plants.

Though not used nearly as extensively as irises, there are also daffodils, peonies and hemerocallis on our highways that blossom.

Iris In The Birmingham Botanical Gardens

Evelyn Boon

In the heart of Dixie, in the foothills of the Appalachian Mountains, lies the city of Birmingham, Alabama. Rich in vast deposits of iron ore, coal and limestone, the principal ingredients to make steel, the City is surrounded by ancient, worn mountains and recognized for the abundance of wildlife, fertile soils and water supply. Within this wealth which nature has so adequately supplied, a very special garden sparkles like a jewel, the Birmingham Botanical Gardens, just a few minutes from the heart of the city.

What seemed to be a fantastic dream started in 1960 when the Mayor, Mr. Jimmy Morgan, influenced the Birmingham Park and Recreation Board to designate 67 acres, acquired by the city in 1886, to be used for the development of a botanical garden. Ultimately, the blueprints showed five major gardens, and the Iris Garden was one of them. Mr. Morgan recently said, "But there had to be an Iris Garden because you iris people always get the job done."

One of the few floral clocks in the world has been contributed to the gardens and was placed directly in front of the Conservatory.

In time the large and outstanding Japanese Garden was started. This colossal endeavor required eighteen months of work, and was made possible through the combined efforts of the Birmingham Park and Recreation

Board, the Birmingham Council of Garden Clubs, the Birmingham Botanical Society, and the renowned Japanese landscape artist Buffy Murai.

Buffy's first concern, upon acceptance of the Japanese Garden, was not over the pebbles, stones and boulders which would form the garden skeleton, but about irises. He insisted that "There can be **no** Japanese Garden without irises, irises and **IRISES!**" Credit has to be given to this iris-loving Japanese because he planted thousands of them to grace the Japanese Garden. Irises were planted along the streams of the Seven Virtues Waterfalls, beside the Long-Life Lake, in the shadows of stones and boulders, under the oak and pine trees, and between the rocks of the pathways. Of the many types planted, each iris bore a symbolism of an ancient land where emerged the spiritual concept of Man's partnership with Nature.

When the Japanese Garden was completed and dedicated in May, 1967, the Iris Garden was on schedule for construction. The site finally selected was the plot directly in front of the Formal Terrace with the reflecting fountain, a conspicuous and desirable place demanding a high degree of maintenance. The topography is especially suited to the varied needs of bearded and beardless irises. The space will adequately accommodate 4800 established clones. The benevolence of time permitted the re-evaluation of garden design as well as selective consideration of materials to be used in construction. The burden of cost in garden developments and planting rested upon the groups who assumed the responsibility, but when the garden is established, maintenance is assured. Fortunately, the Society members had been busy raising funds for the past five years. It is well because this venture was becoming expensive as taste improved and plans grew.

Tons of moss-and-lichen-covered native stones were used to outline the free-form beds; a sprinkler system was installed and the winding paths were covered with gravel prior to the layers of bark chips. The purpose of muted background materials is to highlight the irises. Above the soft gray stones defining and outlining the beds, edgings of bronze ajuga and a select variety of sedum were carefully handworked to tie-in plants to earth. Buffy taught us much during the planting of the Japanese Garden. The companion Hermerocallis Garden is linked to the Iris Garden by three small bridges just above the lake areas which had been created. Heavy boulders fortify the lake banks and provide beds where Alabama native species of irises are planted. All of the basic work moved smoothly. Patience had been rewarded.

When it was time to plant the irises, all of the BAIS members were asked to bring their personal contribution of plants and help with the initial plantings. They came in jeans, equipped with tools. During the excitement someone remembered that the next day would mark the tenth birthday of the Birmingham Area Iris Society. What could be more auspicious than the planting of a garden to celebrate a birthday? Long strides had been made in ten years by a very small group—accomplishments to be proud of. Dr. Avery, Director of the Brooklyn Botanic Garden, when on a visit to the city, was impressed with the Botanical Gardens and was especially complimentary about the Iris Garden design.

Plantings have continued through the hot, long and humid summer. Through the wonderfully enthusiastic support of the Medianites, five beds

of medians are planted in the garden, each class in a separate bed. There are many fine varieties of spurias, Siberians, Louisianas, and Japanese, as well as a substantial number of species of various types. There are no MDBs nor oncocyclus or regelias or their hybrids as yet, but time and money will bring them into the garden next year.

Thousands of irises have been placed in the Botanical Garden during the past two years. At this time, three types of gardens are planted with them—the Japanese, the Wildflower and the Iris. The beardless group has grown rapidly along the stream, lake and waterfall areas. If they continue to do so well, a bog garden will be needed to accommodate the surplus. Natural bog conditions exist at the lower section of the 67 acres, and can be developed with small effort and little cost.

The story has only begun, because purposes must be realized: They are: the establishment of a display garden of beauty and value for public enjoyment and appreciation; a growers' garden to encourage the growing of newer kinds of improved types and varieties of all irises; a judges' garden for study, observation and selection of varieties worthy of AIS awards; a garden to test for hardiness and vigor, selection of varieties which perform well in a warm, humid climate, and the development of a breeding program to establish hardy varieties in the Birmingham area.

And so, the Iris Garden, too, in its youth, represents "an expression of the abundance of Birmingham's natural beauty and the magnitude of its peoples' ambition and determination." The fantastic dream has become a reality.

The Region 14 Display Garden

Roy Oliphant

If the Region 14 Display Garden ever finds the time to count its blessings, chief amongst them will be its location in the University of California Botanical Garden at Berkeley. We are proud that we are the only non-university organization to be granted space in the Garden; grateful that



Region 14 Display and Test Gardens
(*Photo by Long*)

we have the protection of its enclosing fence, the sympathetic help and understanding of its trained staff, the ready-made audience provided by the attraction the Botanical Garden itself has for the public.

We have our problems, and there are some who never let us forget them. The Iris Display and Test Garden is a five minute walk from the parking area, and private cars are not allowed within the Botanical Garden. It has been whispered by those who lack the stamina of their forefathers that the slope is unclimbable. The Botanical Garden is situated far up in Strawberry Canyon, in the Berkeley Hills. Canyon is the operative word. There is scarcely any level land, a situation which we prefer to look at not as a hindrance but as a challenge. In compensation, the walk leads past some of the most fabulous and beautiful plantings to be found anywhere. If one can tear himself away from African Hill, from the succulent garden, Rhododendron Dell, the Australasian plantings, he eventually finds himself on the brink of the Test and Display Garden. Here, on a clear day, one can see out through the Golden Gate and over the Pacific—forever.

Important as the two Test Gardens (National and Regional) are, this is the Display Garden's story; and the Test Gardens' role is incidental, except as they are part of the total planting and as they supplied the fulcrum by which we gained additional land for the Display Garden. When we moved to this location, the grant was for the Test Gardens only. We pled the need for a display where we might grow the newest and the best in tall bearded irises, to serve as a basis of comparison for judges. (Though it may be heresy to say so, we suspect that not all judges have total recall.) We were given the extra land; and twice more, after receiving collections that simply **MUST** be planted, and though the Botanical Garden management must surely have thought us lineal descendants of the camel who stuck his nose in the tent, we were granted extensions. We now have, not all the land we would like, but surely all we possibly can take care of. To mitigate the slope, we started construction of eleven terraces across it—and were in business.

Here, then, are our hopes, our aspirations, for the Display Garden, and our accomplishments (if you can forgive us the term "accomplishments" after only two bloom seasons.)

The Garden should serve as a central point where the Region's hybridizers can display their newest introductions and most promising seedlings, for the consideration of Judges and the delectation of irisarians. With this in mind, we invited the Region 14 hybridizers to send their irises to a Region 14 Hybridizers Section of the Display Garden. The response was overwhelming and we sincerely believe that, both in 1967 and 1969, this section was the feature of the Garden. We are thinking of expanding this idea and inviting the hybridizers of the West to send their seedlings and introductions on a two-year guest basis. This we believe will benefit both the Garden and the hybridizers; the Garden because it will enable us to continuously show the "new" things—and a display garden is "dead" as far as irisarians are concerned if new irises are not always on show; the hybridizer because it will provide them a show window for Judges, other irisarians and the public.

Any display garden worthy of the name should expose the public to the great advance that has taken place in tall bearded irises, in order to in-

terest them in our flower and in the hope that some of our enthusiasm will rub off. The public's reaction to our general display has been heart-warming. People come; they rush away to bring back their friends and relatives; they consult our Bulletin, which gives information on both AIS and the local societies, notes the meaning of the Awards symbols (each iris in the garden is labeled with name, hybridizer's name, year of introduction and highest award), and lists the addresses of iris specialty nurserymen. They take notes, and the names of their favorites.

We can't win them all, however. We noticed one lady taking down a long list of names and, scenting a convert, introduced ourselves. It turned out that she is a modern artist and felt that iris names would be particularly suitable as titles for some of her paintings! She asked if it is permissible to use them thus and we assured her she would be delighted, but suggested that, if she cared to, she might give the Society credit. We look forward to, any day now, seeing an exhibition of very modern paintings with titles such as "NUDE WITH ORANGE—by permission of the American Iris Society."

After the 1968 bloom season, to make way for new additions and to update our general planting, we removed all irises that were older than 1963. We believe now that this was a mistake. The prices of the newer irises must surely give the neophyte, dabbling one tentative toe in iris waters, a shock. Next year we shall devote some of the best of the relatively inexpensive irises (and so label them) to encourage the beginner to take the fatal plunge.

Certainly a display garden should be more than an exhibition of tall bearded irises. It should remind the old pro and show the public the great diversity of beauty and form to be found in the genus. To this end we have solicited, and gladly accepted, collections (some of them outstanding) of bearded species, native Pacific Coast irises and their hybrids, dwarfs, intermediates, border bearded, C. G. White arilbreds, spurias, Japanese (both American and Japanese) creations, evansias, and Spanish and Dutch bulbous irises. We hope to add beardless species Siberians and Louisianas. It is regrettable that we haven't the space to show more of the remonants; but happily, in this climate, we are seldom without some bloom either in dwarf or tall bearded irises.

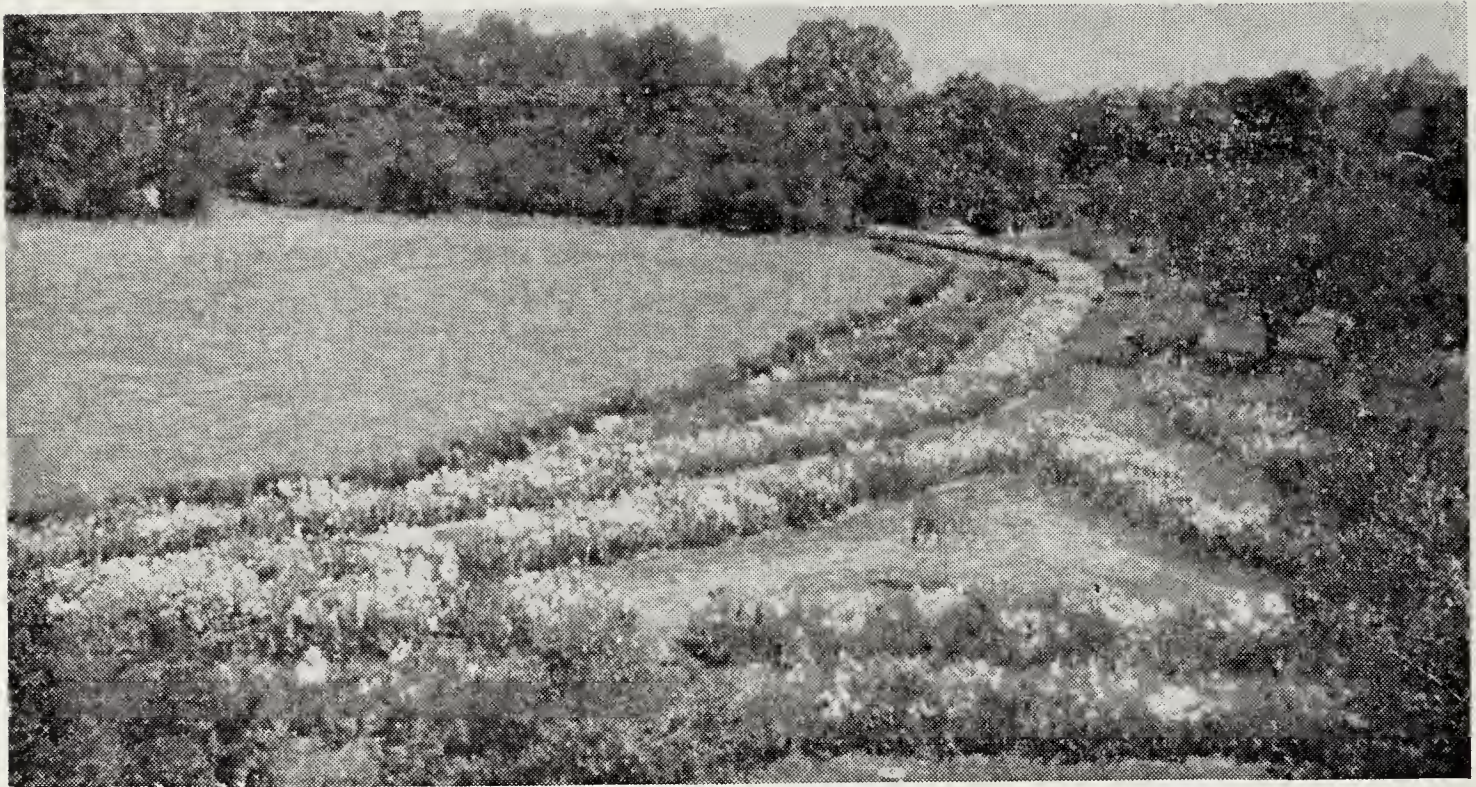
So much remains to be done, if we can find the space, the time, the labor, the money (those all-powerful words!). We do have one path bordered with some of the famous old irises of our Region, as a memorial to the hybridizers of the Region's past.

What we would like to do, and hopefully will do, is to occasionally present small displays of parents and offspring, to point up the hybridizer's work; to illustrate present progress toward certain color or other goals; perhaps even to illustrate the fantasies of our very "modern, very far-out" hybridizers and the malleability of the iris form, for good or for ill. We would like to call attention to some of the other members of the iridaceae, such as *Dietes* and *Moraeas*. There is much to be done, both for our own members and for the public.

An Iris Display Garden, like Alice in Wonderland, must run as hard as it can just to stand still.

WHERE ARE THE IRIS OF YESTERYEAR?

Gordon Blackwell
(with photos by author)



PRESBY MEMORIAL GARDENS releases its streamers of iris beds in superb design. Landscaping was contribution of Dr. John C. Wister. The darker edging of the prominent sword is Siberian row. The tall bearded iris are in the dappled rows, with historicals in far background. Much more of garden is out of camera's range.

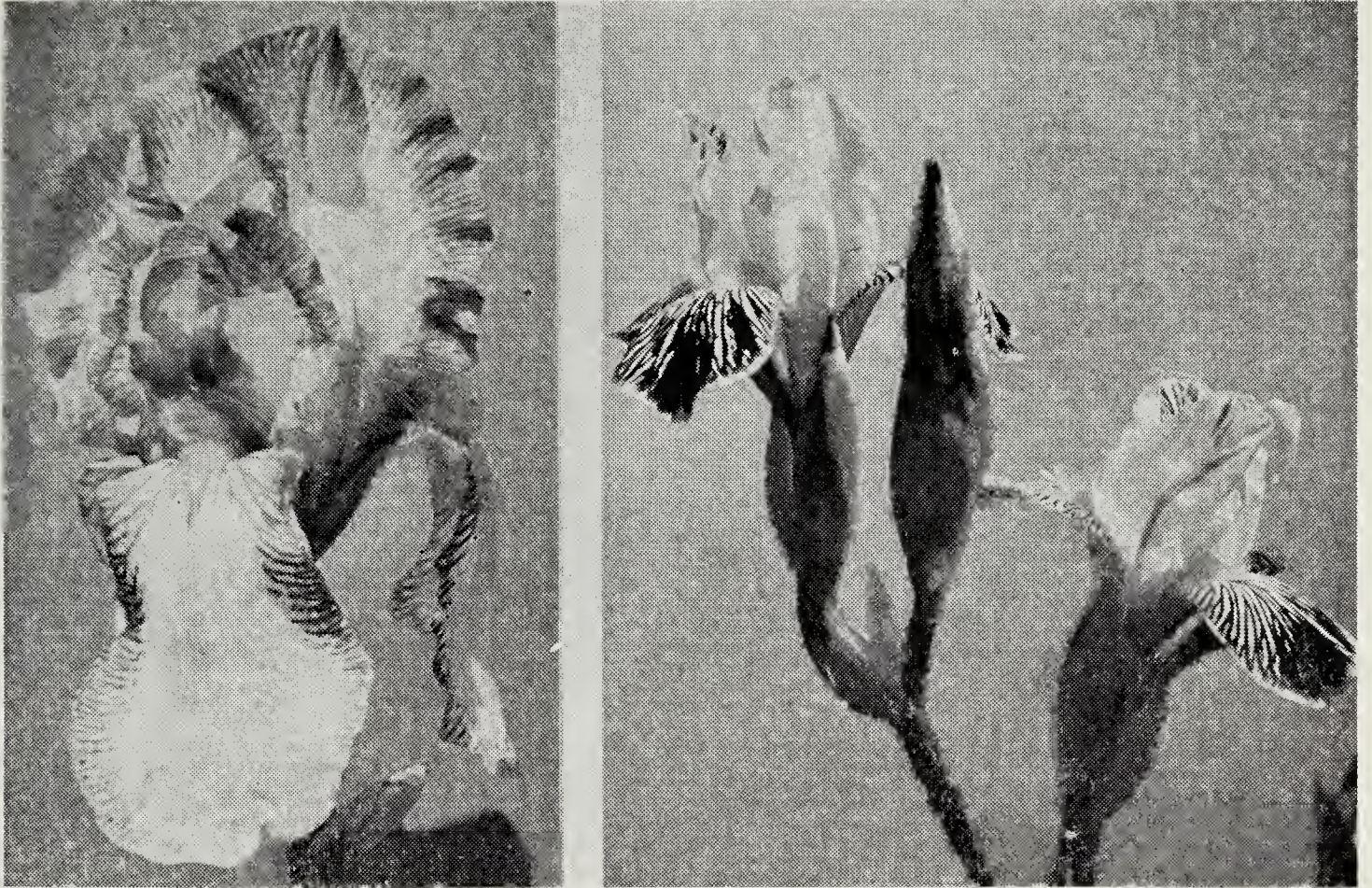
Many milestones of man's endeavor would be lost forever if it were not for museums, libraries and plant repositories. Ironically in terms of irises, a public garden must replace the old with the new every year or suffer attendance losses. The ever-new fever is highest where the hybridizers' achievements are the most numerous.

You will discover in a walk through botanical gardens that venerable roses, tulips, dahlias and rhododendrons grow alongside newer cultivars without apology. But with the tall iris, the rule of the thumb is to plow under whatever is older than ten years.

Does no one like old irises? Indeed, many people do. One woman cherished a garden full of these for half a century. Over the years she had lost some of the names, so she put the nameless blooms in plastic containers last spring and took them to Presby Memorial Gardens in Upper Montclair, N. J., where she knew there were large permanent plantings of irises dating back to the 17th century.

"Only when you compare the blossoms," she explained to an interested observer, "can you be sure. This one has the colors of COTTAGE MAID, but its markings are different." She enjoyed several hours in the pursuit of identifications.

Before 1920, iris names were not dependably true when purchased in some places. One could order QUAKER LADY or other favorites from



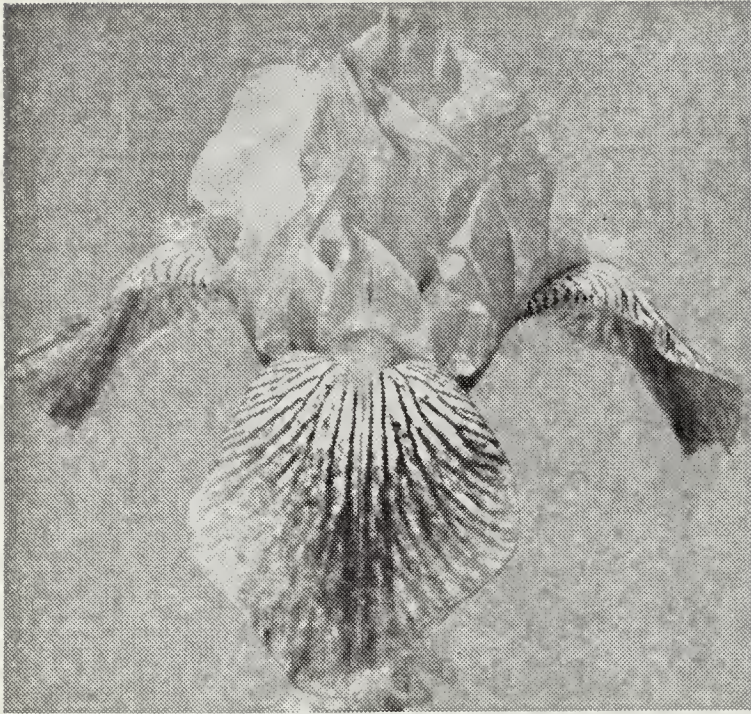
MADAME CHEREAU (left) a plicata, introduced by Lémon, has light lavender markings on white background. It was sometimes confused with other iris. At Presby we are certain of its 1844 "vintage." IRIS VARIEGATA, (right) this one the true flower cultivated in 1613, is of median height and proportions. Yellow standards rise above flaring falls with deep red veins.

two nurseries and when they bloomed they might be entirely different and both incorrect. Many people were very concerned about this situation. Dr. John C. Wister, the first president and co-founder of the American Iris Society, was anxious to locate true specimens. As a collector he went to England, France and elsewhere to consult with experts like W. R. Dykes and Cayeux.

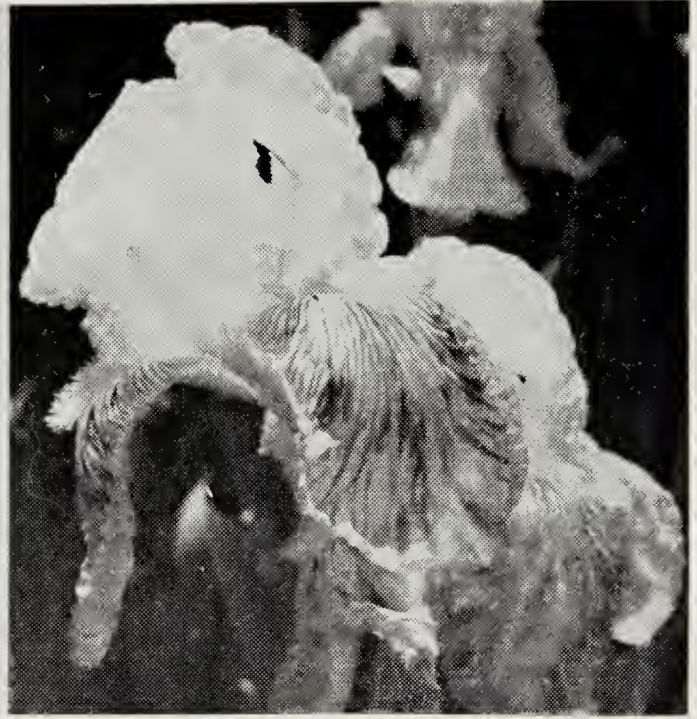
In 1927, after the Upper Montclair project was begun in memory of another AIS founder, Frank H. Presby, Dr. Wister gave them years of unlimited assistance and—most important for posterity—many of his historical iris. So exact was his scholarship that Barbara Walther, the custodian and guiding light of Presby for 41 years, will not change anything authenticated by Dr. Wister.

This public show garden was not destined to be a mere museum of antiquities. Mrs. Walther, with appropriate persuasion, interested the great American hybridizers to donate the cream of their crop. In this way hundreds of new creations are added each year. Eventually these contributions become important pages of the past. For example, a researcher on Hans and Jacob Sass, prominent American hybridizers and Dykes winners, could assess the whole Sass output any spring at Presby.

After 41 years of burgeoning, the largest collection of *important* bearded iris ever brought together now blooms at Presby. The total is in the thousands, no one knows how many. The vast canvas includes dwarfs, medians and tall bearded irises, with the latter taking the center of the



Another Lémon introduction, this one in 1840, is HONORABILE. Note that the light yellow stands touch and the ox-blood red veined falls have a certain flare.



IN HONOR OF DYKES, this iris, selected from his seedlings posthumously, was named W. R. DYKES in 1926. It was the start of many fine yellows. Reddish tan veins and flecks are on the falls. Its creped texture, reminiscent of ZUA, was a predecessor to modern lace.

stage as in many private collections. There are also representatives of the non-bearded categories, including large plantings of Siberians.

From time to time, hybridizers need some of the old iris in their work, but buying becomes impossible as commercial supplies are cut back. A warning in retail catalogs sums up the trend: "Order older sorts now. Next year they may be deleted." Presby does not sell irises, but an inquiry from qualified breeders or botanical garden directors will not go unanswered.

Because of their world fame as a repository and because there is a renewed interest in historical backgrounds, Presby has had such requests with increasing frequency in recent years. The late Dr. Marc Simonet of France — whose work was continued by Dr. Peter Werckmeister of Germany — conducted extraordinary embryo culture experiments on the old irises sent from Presby Gardens. The fascinating results are on display in Upper Montclair today. When the New York Botanical Garden found they were in need of certain cultivars, Mrs. Walther and her volunteer helpers assembled and sent them.

It is no small job to dig, label and package irises, even when you are in the nursery business, which these people are not. Presby's staff worked for weeks to ship hundreds of historical iris when the International Iris Gardens were started in Florence, Italy. There the world's second most comprehensive historical collection can be seen today, and Presby has the satisfaction of being the proud "parent."

In 1968 this inquiry came to Presby: "Can you send irises that mid-western farmers might have planted around their dooryards in the 1880's?" This was a challenge to Mrs. Walther. Soon they shipped 150 rhizomes,

excluding things of that era that were rare or expensive. Next spring visitors will see the Presby donation flowering at the recreated "Cow Town" built and sponsored by Wichita, Kansas.

The enduring value of Presby Memorial Gardens is as a Hall of Fame to prevent both historic and modern iris from becoming extinct. Every knowledgeable irisarian lucky enough to visit this sanctuary comes away with the wish that it may be preserved for all time.

PRESBY NEEDS YOUR HELP

Barbara Walther and Gordon Blackwell

Presby Gardens always seem so lavish in everything that it does that visitors assume that it is heavily endowed. In actuality, a small sum is raised by the Montclair, N.J., Garden Club, who have faithfully supported the Gardens since the beginning. But the rest of the money urgently needed was supplied in the old days by the late Fred Walther. Extra fertilizer, labor costs, species purchase money, etc., always are pressing needs.

For the first time, Presby Gardens is soliciting outside help. The national repository that The American Iris Society would have to start from scratch if there were no Presby is here today. A working capital fund is sorely needed by this non-profit organization. Send your contributions, of whatever amount you can spare, to help maintain this magnificent project. A receipt for tax deduction purposes will be returned to you, if you request it.

Address: The Citizens Committee for Presby Memorial Gardens, 474 Upper Mountain Avenue, Upper Montclair, New Jersey 07403.

In addition to current funds, the Gardens will need much more in the future. Why not remember Presby Gardens in your will? The whole iris world will thank you.

The University of Washington Arboretum

Jean Witt

The University of Washington Arboretum is of interest to garden lovers the year around, but iris fanciers who are in Seattle between mid-May and mid-July will find the iris plantings in the Japanese garden of particular interest to them. Here is a chance to see irises grown, not as row crops, but used with skill in an assortment of garden situations. The large pond-side bed of *I. kaempferi* cultivars in endless variations of white, rose, and red-violet blooms from about the last week in June to the middle of July, and is the main display of irises. However, visitors who come toward the end of May and the early part of June will find an equally good show of *I. laevigata*. This species, known in Japan as the rabbit-ear iris, is planted in the sort of water-side drifts one sees in Japanese art, and is impressive for its smooth medium blue flowers, as well as whites and dainty spotted types.

Other species to be seen in the garden in early June are *I. kamayama*, a tall violet-flowered Japanese form of *I. sanguinea*; the Japanese form of

I. setosa, which is also violet-flowered and a very vigorous grower; tall stately clumps of butter yellow *I. monnierii*; and a planting of the frilly white-flowered form of *I. tectorum*. (An even more attractive grouping of *I. tectorum* 'Alba' can be seen among the shrubby penstemons at the top of the rock garden near the Arboretum's south entrance.)

Winter visitors to the Arboretum will find a few flowers almost any time from November to February on the large clumps of *I. unguicularis* (*I. stylosa*) behind the greenhouses in the office area. Early summer visitors should look for the group of *I. milesii* on the southwest corner of the lath-house; this all-to-seldom grown Evansia has flowers like a spotted *I. cristata* on three-foot stems. Inquire at the office as to other possibilities: *I. hookeri*, the northeastern form of *I. setosa*, and *I. lactiflora* (*I. ensata*) from central Asia may be in bloom on the stone wall behind the green houses in early June, or yellow-flowered *I. wilsonii* in the same location toward the end of the month. *I. douglasiana* is planted out in a number of places on the Arboretum grounds; its evergreen leaves make it useful as a ground cover. Don't overlook *I. pseudacorus* along the waterfront nature trail, where its floating seeds have allowed it to become established on the marshy islands in Lake Washington.



PIROUETTE

Cassebeer '64

Morgan Award '68



Mrs. Ruth Wilson, Region 17 Membership Chairman, presents to retiring RVP Leon Wolford and Mrs. Wolford life memberships in AIS on behalf of membership of Region 17, in appreciation of their services to Region 17 and AIS. From left to right: Mrs. Ruth Wilson, Mr. Leon Wolford, Mrs. Leon Wolford.

MEDIAN DISPLAY GARDEN

Hannon, Ontario, Canada

Bruce Richardson

The pleasure our friends and we have had from medians started from the admiration we had for GREEN SPOT, GOLDEN FAIR, YELLOW FLARE and CLOUD FLUFF, advanced when BRASSIE, TINKER-BELL, ALLAH, ZWANENBURG, KERRY PIPER and GAY LASSIE were added, and so the collection grew.

This display garden, solely for median type irises, was established in 1962, along with an adjoining bed for dwarfs, from our own stock scattered over a wide area, and consisted of 100 varieties at the time. It grew to 171 in 1965, and was made an official display garden in 1963.

The original intent was to give each variety lots of room to grow into a massive clump, so the spacing was 3' by 3'. Rather thin looking at first, as some were started with only one rhizome, some of the original clumps now are touching. The original bed of five rows was filled in 1965, so now there are two, with a 3' grass pathway between them. Adjoining these beds to the north, and separated from them by a grassy path, is a display bed for some 70 varieties of dwarfs, so there is a great concentration of bloom in this one small area for up to two months.

No serious attempt has or will be made to keep up with the Jones and have everything, but a few new ones usually are added each year, and the old retained. Forty-one very new and exciting varieties came from Bee Warburton's garden this fall. They came late and well dried out, due to delays caused by the postal strike, but the bloom of these is eagerly awaited next spring. To ensure the blessed event actually occurring, all these irises were placed in 6" pots and now are growing in our greenhouse in early November. None were lost or failed to continue growth, although some had no green leaf tissue left on them when received. Most of these were introduced in 1963 to 1965, but some are more recent.

Everyone has color preferences, but since JERRY RUBIN, NYLON ROSE and CLOUD FLUFF are first in bloom, perhaps they are the first ones sought for. By May 14 they usually show color. ELEANOR ROOSEVELT and POGO are also early and faithful bloomers. JACK O' HEARTS we like, as well as EASTER BUNNY, COREOPS, LIME RIPPLES and OHIO DEB. All three pinks we have, PINK FANCY, SAUCY PEACH and LILLIPINKPUT, are good. Dr. Randolph's BARBI we enjoy, but his BLACK AND BLUE does poorly for us.

EASTER HOLIDAY's markings are very attractive, while KNOTTY PINE does so well it has to be thinned often, although an enjoyable flower. VELVET CAPER is one we admire very much each year. Even ZUA and BLUE ZUA put on a show. Some others that stood out prominently this year are BLUE FLURE, RUSSET DOT, CUTIE and JUNGLE SHADOWS. Probably this last-named odd-colored iris attracted more attention than any other in the bed.

So you see we have the new blended in with the old, to just mention the ones that are outstanding in the mind's eye in November.

WHAT EVERY IRIS GROWER SHOULD KNOW

The IRIS is the "flag" of yesteryear, and there are many of us who can recall so very vividly the memories of those bright flowers in the garden of a beloved grandmother. These were among the flowers which our pioneer women carefully dug and as carefully tended along the frontier trails to start afresh another spot of beauty in the new home at the end of the journey.

And the IRIS can be traced back in the history and the literature and the art of man to the very beginnings of chronicled time—and the record is a fascinating story.

These "flags" of the past, treated with the genius of the modern hybridizer, have been transposed, almost in Cinderella fashion, into the dazzling beauty of today's modern irises, so very appropriately described by Dr. William McGarvey as the flower with the architectural form. We recognize our bias, but we still hold that none other is so strikingly spectacular at the full glory of its perfection.

There are many kinds of irises—botanists who have studied the genus report over 200 species. Best known to American gardeners is the majestic tall bearded iris, which at the zenith of its development almost makes a bouquet with a single stalk.

But there are the little species which send their bloom through the snow, and spring has only freshly begun when the miniature dwarf bearded irises carpet the ground with color to attract the eye from afar with the new beauty of the season. A little later, and a little taller, and with a backdrop of the emerging greenery of spring, come the standard dwarf bearded, again with all of the rainbow band of color that calls to them the eye attuned to beauty. Just a little later, the intermediate irises begin to bloom, now branched and taller, with larger flowers, to take advantage of the foil of the now more lush growth of spring.

Next in order of time come the arils and arilbreds, including the exotic oncocyclus, a native of the Holy Land. "Consider the lilies of the field, how they grow; they toil not, neither do they spin; and yet I say unto you, That even Solomon in all his glory was not arrayed as one of these." *Mathew 6-28,29.*

About the same time and later, the miniature tall bearded (often referred to as table irises), the border bearded and the tall bearded come into bloom; and a garden of these, in all of the iris colors with their tints and shades and tones and blends, is the range of the artist's palette.

At the same time and extending on into the season come the beardless irises—the Louisianas, the Siberians, the spurias and the Japanese, each with its own distinctive form and characteristics, and each in turn adding to the unfolding garden picture.

Recently there has been a revival of interest in reblooming irises, and new improvements in this class adds another season to the iris year. Then, to add interest and zest, many gardeners add some of the native American irises and the wild irises from faraway places.

THERE ARE MANY ROADS

Many of us are iris specialists. We grow from a hundred to a thousand different varieties, and we hybridize and grow seedlings by the hundreds and the thousands in the quest for the more perfect iris.

Others of us are backyard gardeners. Some of us will raise from a few irises to several beds, to add color to the garden, to provide flowers for the home and for flower arrangements and floral designs, or to provide the bloom to enter a show. Others of us use the iris as an integral part of the flower-shrub combination to form the pattern for lovely garden pictures.

But the iris hobby leads to many other paths. It appeals to the scientist. Even the amateur with an interest in heredity and genetics finds the iris a useful medium for study, for the ability to produce flowers from seed in two years, and yet retain the original plant, provides the possibility of studying six generations in the span of ten years. And for the geneticist, dealing with iris genes of many different species from all over the northern hemisphere, there is an exciting challenge. The hybridizer, in pursuit of perfection, is engaged in the intriguing study of plant characteristics, hereditary traits and the whole range of genetic possibilities that are inherent in modern irises. The grower, seeking to display the best of plant and bloom, is led into a study of soil chemistry and bacteriology. The botanist finds a superior challenge in the search for classification and relationships of the many iris species. The student of color soon finds himself going beyond classification into the scientific bases for color, and pondering such phenomena as the spot pattern *plicata* patterns.

The landscape architect finds his challenge in the creation of beautiful landscape scenes. The flower arranger finds in the rich galaxy of iris colors the materials for floral designs for the home, the office and the show. The gardener who grows the iris to perfection finds a satisfaction in displaying to the public the epitome of his hobby. "Happiness is the Queen-of-the-Show." The historian can find a rich lore, from the iris as the symbol of priest and prince, to the use of irises in mythology and in the heraldry of more modern nations. The nature lover can pursue the quest for the species in the untamed areas of the country or even in foreign lands. Color photography has almost become second nature with many iris gardeners, and lately there has developed a growing interest in the collection of iris artifacts and antiques.

In these and many other ways, the iris hobby has spurred an enthusiasm in many fields, and these in turn have reflected back an enlarged interest in the IRIS, and the whole process has added richer dimensions to our lives—to the young at heart. From every walk of life come these irisarians of today—the doctor, the lawyer, the merchant prince, the clerk, the mailman, the bus driver, the policeman, the artist, the scientist, the teacher, the accountant, the stenographer, the college professor, the housewife, the builder—indeed, from every station of our economic and social life come these growers and students of irises — each finding a deep sense of the fulfillment of beauty in today's irises, and a sense of adventure in the paths to which they lead.

THE AMERICAN IRIS SOCIETY

The American Iris Society of today is organized to help meet the needs of this wide-spread enterprise of interests. It maintains a Round Robin Program, in which each member can correspond with others of kindred interests. Among the Robins "flying" are hybridizing, both advanced and amateur, historical irises, teens-and-twenties, international, species and natives, reblooming, general median, standard dwarf bearded, intermediate bearded, miniature tall bearded, border bearded, miniature dwarf bearded, aril and arilbred, Japanese, Louisiana, Siberian and spuria. We pledge to start a robin on any iris subject in which a group of irisarians is interested.

In addition, many of the special interest groups have organizations, most of which are affiliated with The American Iris Society; and most of these have their publications. Affiliate organizations are always listed on page 1 of *The Bulletin*.

ORGANIZATION

The American Iris Society was organized on January 29, 1920, at a meeting at the New York Botanical Gardens, New York, the host city for Society's Golden Anniversary convention, in 1970. Seventy persons attended this organization meeting.

PRESIDENTS

The Society has had twelve Presidents.

Dr. John C. Wister	1920-34	Mr. Harold W. Knowlton	1953-55
Dr. H. H. Everett	1935-39	Mr. Marion R. Walker	1956-59
Mr. W. J. McKee	1940-42	Dr. L. F. Randolph	1960-62
Mr. Jesse E. Wills	1943-46	Mr. Robert S. Carney	1963-65
Dr. Franklin Cook	1947-48	Mr. Hubert A. Fischer	1966-68
Mr. Guy Rogers	1949-52	Mr. William T. Bledsoe	1969-

BOARD OF DIRECTORS

The affairs of the Society are managed by a Board of twelve Directors, four elected each year for a three-year term. The members of the Board serve without pay or expense account.

The Board establishes the policies of the Society, adopts a budget, elects a President, a First Vice President, a Second Vice President, and a Treasurer, selects the secretarial, the editorial and registration staffs, approves the appointment of committee chairmen and other officers appointed by the President, and supervises a great number of activities in the name of the Society. The official roster of the Board, the officers and the committee members always appears on page 2 of *The Bulletin*.

The Board meets twice a year. The first meeting is during the spring convention of the Society, and the officers and committees report to the Board, the Regional Vice Presidents and the Presidents of the Affiliated Societies. The second meeting, the main business meeting, is held in the fall, and is a two-day meeting.

The Board, through the pages of *The Bulletin*, through the RVPs and through correspondence, tries to keep interested members informed of the affairs of the Society. To aid in the freer flow of information to the mem-

bership, a designated member of the Board sits in on the official meeting of the RVPs; and an RVP, selected by the RVP organization, sits in on the Board meetings.

THE REGIONS

There are 24 Regions in The American Iris Society. The affairs of each Region are administered by a Regional Vice President, selected by the members of the Region. The roster of RVPs, together with the states they represent, always is listed on page 4 of *The Bulletin*.

To give any assistance the RVPs need, the Board has appointed from among its membership an RVP Counsellor.

Most Regions have regional organizations, with officers and committees, who direct the regional activities. Many publish their own bulletins or newsletters, and hold meetings twice a year. The Region is really a smaller American Iris Society, and most of them carry on much the same kinds of activities as does the parent society.

The Region is an important life line of AIS; and the success of both is greatly dependent on the ingenuity, the enthusiasm and the programs of the RVPs and their officers. A dynamic RVP is one of our richest blessings.

THE ANNUAL MEETING

Each year the Society holds an annual meeting during bloom season at some site as convenient as possible for a large portion of the membership. The feature of this meeting is the opportunity to see large numbers of the newer irises which have been sent to the display gardens, but there also is the opportunity of renewing old friendships and making new ones among the people who are interested in irises. Attending an annual meeting is a rich experience which all of us ought to enjoy as often as possible.

AFFILIATES AND SECTIONS

Many of the people who are interested in special groups of irises are banded together in organizations, and most of these are affiliated with The American Iris Society in what we call Sections. The list of affiliated sections, with the names of their Presidents and *Bulletin* Representatives, is always found on page 1 of *The Bulletin*. If you are interested in the special kinds of irises, write one of these representatives and participate in their programs. You will find it to be a rewarding experience.

You may pay AIS dues and dues of affiliated sections in a single check, payable to The American Iris Society. The rates of dues may be found in the Announcements section in each *Bulletin*.

LOCAL CLUBS

A large number of successful local clubs and societies exist over the country. These clubs hold monthly or bi-monthly meetings, have garden tours, exchange iris information and hold iris shows; and many have been instrumental in developing great interest in irises in their communities. A local club with a well-planned program is a great asset to the promotion of irises and The American Iris Society.

AIS encourages these local clubs to become Affiliates, and there are some real rewards for affiliation. Write the Board member in charge of Sections and Affiliates for additional information.

AWARDS

The Awards of the Society are given under a set of rules developed by the Board of Directors, and administered by the Chairman of the Awards Committee. The list of Award winners and the names of their originators is published each July and October in *The Bulletin*.

HIGH COMMENDATION

High Commendation is the first award which an iris can receive from the Judges. Each Judge may nominate for this honor each year not more than eight tall bearded varieties and not more than three varieties in each of the other classes. These must be irises which have not been introduced into commerce, and may be either named or under seedling number. A vote for HC is intended as a recommendation for introduction, and is given to any variety receiving *five* votes.

REGIONAL TEST GARDEN AWARD

Most of the Regions maintain one or more Regional Test Gardens, to which any hybridizer may send seedlings for appraisal. These seedlings are grown under code number for a minimum of two bloom seasons, and any which receive *five* or more votes are given the RTGA.

HONORABLE MENTION

The Honorable Mention is an award for irises which have been introduced into commerce at least one year prior to appearing on the ballot of eligibility for this award. The HM is designed to bring national attention to worthy varieties. Each Judge may nominate for this honor not more than twelve tall bearded varieties and not more than three varieties in each of the other classes. To earn an HM, tall bearded varieties must receive *twenty-five* votes; standard dwarf bearded, intermediate bearded and border bearded, which has achieved an awards system which we define as Medal status, must receive *fifteen* votes; and all other classes must receive *ten* votes.

The HM is a requirement for higher awards, and in order to be eligible both registration and introduction must be recorded in the Registrar's office.

AWARD OF MERIT

The Award of Merit is a highly coveted honor, and to be eligible an iris must have won an HM. Eligibility begins the second year after the winning of the HM, and continues for three years. The AM is an award for tall bearded, standard dwarf bearded, intermediate bearded and border bearded irises; but other classes of irises have awards of equal level under names designed to do honor to people who have given great service to these special irises. Judges may nominate twelve tall bearded irises for the AM award, and the twelve irises receiving the highest number of votes (not less than *sixty-five* votes) are given the award. Judges may vote for three each in the standard dwarf bearded, the intermediate bearded and the border bearded classes, and the three receiving the highest number of votes in each class will receive the AM (not less than *twenty-five* votes).

AWARDS EQUIVALENT TO THE AWARD OF MERIT

CAPARNE AWARD. For miniature dwarf bearded irises. The Judge may vote for one iris. The award-winning iris must receive at least *fifteen* votes.

WILLIAMSON-WHITE AWARD. For miniature tall bearded irises. The Judge may vote for one iris. The award-winning iris must receive at least *fifteen* votes.

CLARENCE G. WHITE MEMORIAL AWARD. For arilbred irises with at least one-half aril blood and which show at least two aril characteristics to a high degree. The Judge may vote for one iris. The award-winning iris must receive at least *fifteen* votes.

WILLIAM MOHR MEMORIAL AWARD. For arilbred irises of at least one-fourth aril blood and which do not meet the requirements for the C. G. White Award. Judges may vote for one iris. The award-winning iris must receive at least *fifteen* votes.

W. A. PAYNE AWARD. For Japanese irises. The Judge may vote for one iris. The award-winning iris must receive at least *ten* votes.

MARY SWORDS DEBAILLON AWARD. For Louisiana irises. The Judge may vote for one iris. The award-winning iris must receive at least *ten* votes.

MORGAN AWARD For Siberian irises. The Judge may vote for one variety. The award-winning iris must receive at least *ten* votes.

ERIC NIES AWARD. For spuria irises. The Judge may vote for one variety. The award-winning iris must receive at least *ten* votes.

CUPS

The first two of the cups below are given to irises selected by people attending the national convention. Each visitor is given ballots, and selects his choices from among the irises on display in the convention gardens. Ballots are collected just before the final banquet, and the results are announced at this banquet, thus adding a climax of suspense to the closing of the convention.

PRESIDENT'S CUP. For the best iris originated in the Region of the convention city.

FRANKLIN COOK MEMORIAL CUP. For the best iris originated outside the Region of the convention city.

FRED AND BARBARA WALTHER CUP. Awarded to the iris winning the most votes in the Judges Choice ballot each year.

CLARA B. REES CUP. Voted annually to the Judges' selection of the best tall bearded white iris that has been introduced. An iris which has won the award is not eligible again.

COOK-LAPHAM BOWL. Voted annually to the Judges' selection of the best red iris that has been introduced. An iris which has won the award is not eligible again.

MEDIAN IRIS MEDALS

These medals are for median irises, and are furnished by the Median Society. They are among the most sought awards in irisdom. Median irises move through the medal class to become eligible for the Dykes Medal.

COOK-DOUGLAS MEDAL. Awarded to the first choice of Judges each year to a standard dwarf bearded iris from the list of SDBs which have won the AM or its equivalent.

HANS AND JACOB SASS MEDAL. Awarded to the first choice of Judges each year to an intermediate bearded iris from the list of IBs which have won the AM or its equivalent.

KNOWLTON MEDAL. Awarded to the first choice of judges each year to a border bearded iris from the list of BBs which have won the AM or its equivalent.

THE DYKES MEMORIAL MEDAL

The DYKES MEDAL is the highest honor in irisdom, and the most coveted. It is awarded both in England and America, and formerly was awarded in France. In America, the voting is confined to irises which have won the Award of Merit or an equivalent award. With median irises, with an awards system elevated to Medal status, the eligibles are Medal winners. An iris becomes eligible for the DYKES MEDAL the year after winning one of these awards, and remains eligible for four years. Each Judge may vote for *one* variety.

The American winners are:

1927 SAN FRANCISCO (Mohr)	1952 ARGUS PHEASANT (De Forest)
1929 DAUNTLESS (Connell)	1953 TRULY YOURS (Fay)
1932 RAMESES (H. Sass)	1954 MARY RANDALL (Fay)
1933 CORALIE (Ayers)	1955 SABLE NIGHT (P. Cook)
1935 SIERRA BLUE (Essig)	1956 FIRST VIOLET (De Forest)
1936 MARY GEDDES (Stahl.-Washington)	1957 VIOLET HARMONY (Lowry)
1937 MISSOURI (Grinter)	1958 BLUE SAPPHIRE (Schreiners)
1938 COPPER LUSTRE (Kirkland)	1959 SWAN BALLETT (Muhlestein)
1939 ROSY WINGS (Gage)	1961 ELEANOR'S PRIDE (E. Watkins)
1940 WABASH (Williamson)	1962 WHOLE CLOTH (P. Cook)
1941 THE RED DOUGLAS (J. Sass)	1963 AMETHYST FLAME (Schreiners)
1942 GREAT LAKES (Cousins)	1964 ALLEGIANCE (P. Cook)
1943 PRAIRIE SUNSET (H. Sass)	1965 PACIFIC PANORAMA (N. Sexton)
1944 SPUN GOLD (Glutzbeck)	1966 RIPPLING WATERS (Fay)
1945 ELMOHR (Loomis)	1967 WINTER OLYMPICS (O. Brown)
1947 CHIVALRY (Wills)	1968 STEPPING OUT (Schreiners)
1948 OLA KALA (J. Sass)	
1949 HELEN MCGREGOR (Graves)	
1950 BLUE RHYTHM (Whiting)	
1951 CHERIE (D. Hall)	

(No Dykes Medal awarded for years missing from list)

OTHER BALLOTS

GUEST IRISES. From all over the world the newest of the select irises are sent to the display gardens of the national convention city, to be admired and appraised. From those which have not won an HM, AIS members registered for the convention may nominate *fifteen* which they find to be superior irises.

JUDGES CHOICE. Each year a ballot is prepared listing superior new irises which have won the HM Award, but are not yet eligible for a higher award. Judges may vote for *twelve* choices for tall bearded irises and *three* choices in each of the other classifications.

SYMPOSIUM. The Symposium is a ballot which all AIS members may vote. Each member is invited to help select the outstanding tall bearded irises, for all-around garden purposes, as they have seen them grow in their own or other gardens. A list, furnished as a guide to selection, is made up of the top one hundred irises of the Symposium of the previous year, the Dykes Medal eligibility list, the Award of Merit eligibility list, and the Honorable Mention Award winners of the previous year. Other choices may be written in. All members are urged to vote.

Several of the specialty iris organizations also conduct symposiums.

COLOR CLASSIFICATION

To aid show committees and those who register irises, AIS publishes color classification books. With the adoption of the *Royal Horticultural Colour Chart* and the need to define more sharply color classes into subclasses, the committee, with the aid of members interested in color, has started to re-read colors of iris varieties. It is expected that by 1970 a new book listing good and well-known examples of each color class will be published.

Color classes are recorded by symbols. The first, a letter, refers to the color class.

W = white	G = green	R = red
V = violet	Y = yellow	RV = red-violet
B = blue	O = orange	N = black

Combinations may be used to more closely define color; thus, BV is blue-violet and YG is yellow-green.

The second symbol, a number, refers to pattern.

1 = self	3 = bitone	5 = blend
2 = plicata	4 = bicolor	

The third symbol, a letter, refers to lightness or darkness of color.

P = pale	F = full	DD = very dark
L = light	D = dark	

The symbol cm refers to conspicuous marking.

Thus, a very dark red-violet self is RV1DD, and an iris with yellow standards and white falls, with a margin of yellow on the falls is Y4Wcm. A pale blue iris is B1P, a pale orange-pink iris is O1P, a white ground plicata marked blue is W2B and a dark blend with violet the predominant color is V5D.

For further information, see the latest editions of the *Judges Handbook* and *Color Classification*.

Other symbols used in color classification and registration are:

TB = tall bearded

MTB = miniature tall bearded

MDB = miniature dwarf bearded

AR = aril or arilbred

SDB = standard dwarf bearded

JAP = Japanese

IB = intermediate bearded

LA = Louisiana

BB = border bearded

SIB = Siberian

SP = spuria

EXHIBITIONS-SHOWS

There are many successful iris shows, and there are few if any better ways of acquainting the public with our favorite flower. The Exhibition Committee of AIS is a service organization for groups that sponsor iris shows. AIS awards are available to any show that follows the rules of the Society. These rules are simple and easy to follow.

The top awards, the Silver Medal for the most blue ribbons in horticultural classes and the Bronze Medal for the second-most blue ribbons, are furnished free of charge to affiliated clubs, and available at cost to other clubs. A complete list of show supplies and awards is published each January and April in *The Bulletin*. Further information is available in the *Judges Handbook* and from the Chairman of the Exhibitions Committee.

HONORARY MEDALS

To those persons who have given distinguished service to the Society or who have distinguished themselves in the development of superior irises, the Society awards the Distinguished Service Medal or the Hybridizers Medal.

Three Gold Medals have been awarded by the Society: To Miss Grace Sturtevant in 1935, to Dr. John C. Wister in 1940, and to Mrs. Wheeler Peckham in 1941.

JUDGES AND JUDGES TRAINING

In many ways judges are the most important officials of The American Iris Society. It is they who by their votes select the award winners of AIS, and thus in great measure determine the quality of irises in American gardens. It therefore is important that they see and evaluate as many irises as possible each year, and to make appraisals objectively. If you would like to be a judge, you should enter actively into regional affairs, attend meetings and shows, visit gardens and test gardens, procure the latest edition of the *Judges Handbook*, and through study and observation acquire a broad knowledge of irises and iris varieties. See the irises, study them, compare them, appraise them. Read about them in the publications of the Society.

Judges are selected from members of AIS who have completed the AIS Judges Training Course, a well-planned and comprehensive series of lessons, lectures, demonstrations and workshops; and is of value not only to Judges but to anyone who wants to know more about irises. Plan to attend judging schools held in your Region.

Each Region is limited to not more than *fifteen* percent of its members as judges. A Judge who does not vote for two consecutive years is dropped. Judges who have served for fifteen consecutive years are named Senior Judges, and those who have given distinguished service to the Society are named Honorary Judges.

LIBRARY

The Society maintains a library, in which is stored many priceless historical documents of the Society. One of the very significant ones is the typewritten copy of Dr. John Wister's history of the first fifteen years of the Society. Papers and pictures of historical or scientific significance, old catalogs, speeches recorded on tape and a variety of memorabilia about iris and iris personalities are stored here, and more is being sought to complete the story of the history of The American Iris Society, famous members and the early irises. Speed the day when the Society has its own building to display this historic material and make it available to the public.

MEMBERSHIP

An active and dynamic membership, participating fully in the activities of the local club, the Region and AIS, is the lifeblood of the Society. But in order to carry on the work which should be done, we need an increasing membership. Members come into the Society because of the enthusiasm of those who now are members, and if we seriously would adopt as a slogan "Every Member Get a New Member," we could expand greatly the services of the Society. The membership chairman always is interested in those ideas and plans you have for services and features which will help to build membership.

PUBLICATIONS

The Bulletin is the chief publication of the Society. In a time of rising costs, the Society boldly has expanded this publication in total pages and in other features in order to bring as much material of interest and information to our members as possible. Our *Bulletin* tries to have a wide variety of topics that will appeal to the many facets of interest of our members. It constantly is seeking writers who have a story of interest to tell, and there are many of our members who have an item that will be of real value to their fellow members. Why not try to write such an article?

The Bulletin has had seven editors: Mr. R. S. Sturtevant, Mr. B. Y. Morrison, Mr. F. W. Cassebeer, Mr. Sam Y. Caldwell, Mr. Geddes E. Douglas, Mr. Thomas E. Jacoby, and Dr. J. Arthur Nelson.

The Society has published two books on irises. The first, *The Iris, An Ideal Hardy Perennial*, was prepared by The Bulletin staff. The second, *Garden Irises*, was edited by Dr. L. F. Randolph. Both now are out of print and stock, and are collectors' items. Plans are under way to publish a third book.

In addition, the Society has published a number of other publications, including the *Judges Handbook*, *What Every Iris Grower Should Know*,

The Handbook for Regional Vice Presidents, and Color Classification.

The Publication Committee is charged with the final editing and preparation of all of the Society's publications.

A list of books and pamphlets in stock and for sale appears in each issue of *The Bulletin*.

PUBLIC RELATIONS

To provide a steady source of information and to organize a campaign to furnish information where sources of publicity are available, the position of Chairman of Public Relations has been established by the Board. This national committee works to get wide coverage for features of national interest. It welcomes any suggestions and help, and any tips as to where publicity will be welcome.

But the best public relations is the enthusiastic member. People start to grow irises and join AIS because our enthusiasm is contagious.

Local members can contribute greatly to publicity and help to popularize irises by utilizing local outlets of publicity for items of local interest. There are many sources available to the imaginative and ingenious member, and clippings from all over the country, including features in color, show that many of our local publicity chairmen do very well. To help local groups with their publicity, *The Bulletin* staff maintains a growing file of black-and-white photos and some color screened negatives (four-color separations).

REGISTRATIONS AND INTRODUCTIONS

The American Iris Society is the registration authority of the world for all kinds of irises except bulbous, and registrations and introductions from all over the world are recorded with the AIS Registrar. The total has never been counted, but there are sixteen file drawers each twenty-two inches deep, filled with 4" x 6" cards, on which are recorded the registration, the introduction, and the awards data.

In order to be eligible for AIS awards, an iris must be registered, and introduced one full calendar year before it is eligible for an award. For purposes of records, an iris which is introduced by July 1 is eligible for an award the following year; those introduced after that date do not appear on the eligibility list until a year later. It is the duty of the hybridizer or the introducer to furnish proof of introduction to the Registrar. Introduction means that the iris is offered for sale, by means of a printed document. This can be done by advertising in *The Bulletin*, in which case the Registrar automatically records the introduction; or it may be offered in a catalog or duplicated list which is distributed nationally. These catalogs or duplicated lists must be sent to the Registrar, and irises introduced for the year clearly marked, as proof of introduction.

The list of fees and the address of the Registrar can be found in each issue of *The Bulletin*.

The Society publishes each year a listing of registrations and introduc-

tions for the year, and every ten years a Check List of all registrations and introductions for the ten-year period.

AIS has five Registrars: Mr. Charles E. F. Gersdorff, Mr. Robert E. Allen, Mrs. George D. Robinson, Mrs. Walter Colquitt and Dr J. Arthur Nelson.

THE ROUND ROBIN PROGRAM

One of the interesting and fascinating activities of AIS is its Round Robin Program. The fact that many hundreds participate as Robin members speaks eloquent testimony of its value.

A Round Robin is a correspondence group of approximately ten members, and the letters travel in a circuit according to a prearranged route list. During each visit of the robin, the member withdraws his previous letter and writes a new letter to the group.

The Robin Program is divided into a number of Divisions, each concerned with a special type of iris interest.

The committee chairman in charge is dedicated to the promise to start a robin for any iris-related activity in which there is interest, and just recently a new robin on iris artifacts and antiques began its "flight" in the mails. An attempt is made to place each new robin member in a group of people with similar interests and experiences, in order to make the robin letters as useful and interesting as possible.

For many of our members, these robins have been a stimulating and interesting experience, and each member of the Society is cordially invited to join one or more robins. This can be done by writing the Chairman of Robins or any officer of the robins committee.

The roster of Robin officials is carried in most issues of *The Bulletin*, and the Chairman always is listed on page 2. Look over the list of robin topics, write the Chairman about your wants and experiences, and become a part of one of the robin flights.

SCIENTIFIC

In our modern world many of the problems beset us must be solved in the laboratories of science. Many sciences are involved, and to meet the needs of the iris-growing public, a Scientific Committee was formed some twenty years ago. Among the duties of the Chairman and the Committee are to keep abreast of scientific developments and to report these to the membership, to seek out methods and avenues of research, and to aid institutions and persons capable of doing significant studies in the culture of irises. This committee is growing rapidly in importance, and studies which it has instigated or aided are reported in *The Bulletin* from time to time.

SLIDES

The Society has a number of sets of slides which individuals, groups or clubs may rent, either for study or for a program. These sets range from species and historical irises to the very modern. The information as to how and where to get these slides is carried in each issue of *The Bulletin*.

The Chairman requests that if you have a particularly good slide you send it to him on loan, and he will have a duplicate made.

Affiliated clubs may have one set of slides each year rent-free.

SPECIES

One of the stimulating and exciting activities of AIS is that of the work of the Species Committee. It is engaged in the study of the plant and genetic characteristics of species irises, and in their classification. It maintains a seed sales list of a tremendous variety of different species, and publishes a species-oriented bulletin, *Signa*, on its findings and conjectures. Some of our best scientists and students of iris genetics form its membership, and for those who seek the exhilaration of exploring the unknown, this is a golden opportunity.

There are many different kinds of species irises, and this group bids fair to unlock some of the secrets to the improvement of the genus. There are many of our members who have the curiosity and the zest to enjoy the exploration into the mysteries of species irises. Write the Chairman of the Species Committee. His name is listed on page 2 of *The Bulletin*.

REGIONAL TEST GARDENS

Almost every Region has one or more regional test gardens. This program is of particular value to the amateur hybridizer off the beaten path, the one who has difficulty in getting his creations seen and appraised by Judges. The director in charge of the test garden reports back on the growth of the plant and its bloom, and on the judges' appraisal of the bloom in relationship to other irises.

This program should be liberally supported by this class of hybridizer, and Judges in the area of the test garden should visit it regularly as a courtesy and service to fellow irisarians.

YOUTH

AIS now is engaged in the development of an energetic Youth Program, with such features as big brother and big sister, junior clubs, 4-H clubs, junior round robins, a booklet giving information in which our young people will be interested, and a junior section in *The Bulletin*. In an age of the generation gap and youth unrest, we all can reap rich dividends in good citizenship by interesting young people of our neighborhoods in a healthy and worthy activity which will serve as a hobby against the stresses and strains of later life, and at the same time we can come to know the young people of our time and establish rapport and understanding. In a machine age, society must develop some technique to take the place of the time

when every boy worked with his father and every girl worked with her mother. We do encourage each of you who can brush up on your adolescent psychology to get acquainted with youngsters, and to teach them that there are joys and mysteries and challenges in gardening, and peace for the soul. The Chairman of the Youth Committee always is listed on page 2 of *The Bulletin*, and he will be glad to hear from you about your ideas for a Youth Program.

EXECUTIVE SECRETARY

The American Iris Society maintains an office at 2315 Tower Grove Blvd., St. Louis, Mo. 63110, with an Executive Secretary in charge. This office is the nerve center of the operations of the Society. Here membership files are maintained, and here the business of the Society is handled or referred to the proper officer or committee. Mailing tapes are kept up to date. It is important that when you move that you notify the Secretary so that your Bulletin is not returned to the St. Louis office as non-deliverable mail.

Eight persons have held the office of Secretary of the American Iris Society. They are: Mr. R. S. Sturtevant, Mr. J. B. Wallace, Mr. B. Y. Morrison, Mr. John Ferguson, Mr. Howard R. Watkins, Mr. Sam Y. Caldwell, Mr. Geddes Douglas and Mr. Clifford Benson, now serving in that office.

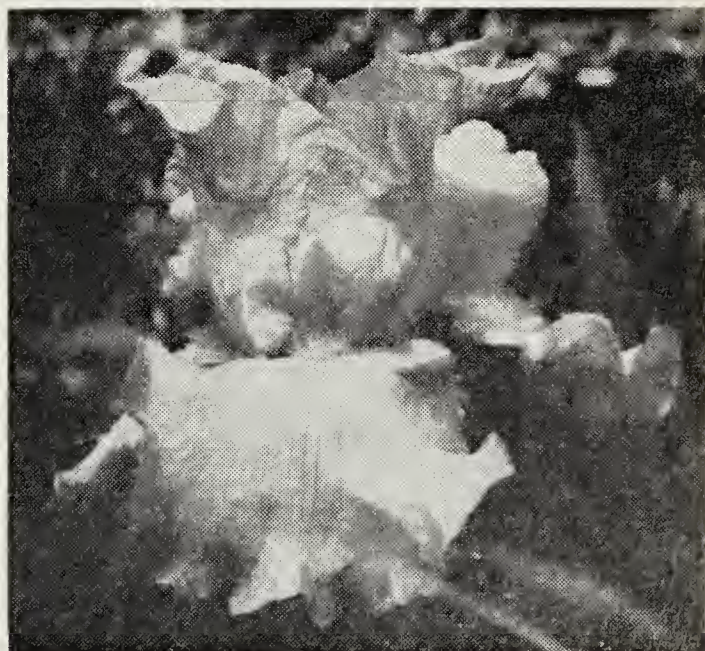
TREASURER

In connection with the business affairs of the Society, the Board appoints a Treasurer who prepares the budget and keeps an account of the finances. Eight people have held this office: Mr. Frank H. Presby, Mr. Arthur H. Scott, Mr. J. B. Wallace, Mr. Richardson Wright, Mr. J. P. Fishburn, Mr. E. Greig Lapham, Mr. Carl O. Schirmer, and Mr. Jay C. Ackerman.

The publication of "What Every Iris Grower Should Know" as a separate book will include chapters on culture of irises (planting, growing, cultivating, fertilizing), diseases and pests, hybridizing and preparation for shows.



TAFFY TWIST
(Roc 66)



ROSE REPRISE
(Fail '66)

(Photos by Keppel)

CONTROLLED CULTURE PROGRAM MILWAUKEE 1969 — CONVENTION — 1969

Clarence Protzmann

In 1965 irises began arriving in Milwaukee for the experiment in bringing the various types in bloom within the limitations of pot culture. All types, including aril species, arilbreds, SDB, IB, BB, MTB, TB, Japanese, Siberian and spurias, were sent. These have been brought to flower in this program in clay pots.

Pot flowering can be readily accomplished, but to delay or hasten the bloom is the problem. When facilities are available so that the variation of conditions can be provided in a climate such as Wisconsin's, success can be more certain. Climatic requirements in as varied a program as this encompasses arid and neutral soil conditions, moisture and acidity, reduced temperatures for delay of vegetative growth and bloom, and heat when necessary for advancement. Pot growth creates the necessity for feeding, and fertilizers are being used in foliar, liquid and inorganic forms. To keep the plants free from antagonists, fungicides and insecticides have been used.

Soils made up of various components, including sand, loam, peat moss, charcoal, bone meal, well-rotted cow manure, have been tried in various ratios. Superphosphate has been used in place of bone meal. A specific soil mixture made up for Japanese and Siberian irises consists of two parts loam, one part well-rotted cow manure, one part German peat moss (acid), and one part torpedo sand. To this two pounds of bone meal was added to a bushel of the mixture. The pH level of this ranges from 5.5 to 6.5.

This project of Controlled Culture is in progress at the Milwaukee County Parks Propagation Center with the objective of trying to bring into bloom for convention time a representative planting in the Exhibition Dome of the Horticultural Conservatory. Approximately 700 potted plants are involved at present. Included within this number, and being cultured by Henry Danielson of Chicago, are his new varieties of hybridized aril species. William Ouweneel and Russell Isle, of Terre Haute, Indiana, have done some work with potted Japanese irises and are busy with a goodly number which will be presented here.

Without mechanical means of maintaining reduced temperatures to retard growth of such early flowering kinds as arils, arilbreds and medians, potted plants in Wisconsin have a tendency to flower earlier than those planted directly outdoors.

With indoor storage, a temperature of 35 degrees Fahrenheit does not stop the root growth of some types or varieties. A shipment of Japanese irises, strong healthy divisions with good root growth, were received on November 26 one year. They were planted in 10" pots, watered and left in a greenhouse for one month to adjust to their new habitat. After this they were moved to a storage room where the 35 degree temperature prevailed, sprayed with a fungicide and covered with black plastic sheets. There are no windows in this area, but humidity is controlled by movement of air agitated by fans drawing air from outdoors. The uncertainty

as to what would happen to the abundant root growth of the plants received at this late date plagued us. These plants did go dormant, but even at this low temperature new growth began to appear in early March. Upon inverting some of the pots, we discovered that the previous root growth had deteriorated and new roots some 10" in length were developing. A number of these plants flowered by June 5 and were exhibited. The vitality of this planting was so spent that following flowering they were planted outdoors for revitalization. With soil conditions in their favor, and with watering and feeding, the vigor of most of them was restored, and they were potted in mid-July of the following year and are again in the program.

The medians under this storage kept well, but when temperatures outdoors began to rise, causing about 45 degrees within the storage building, prolific growth was made, and flowering was at too early a date. Facilities to retain a 35 degree temperature when outdoor temperatures climb do not exist at present. A study is in progress for installation of needed equipment to retain reduced temperatures in this area. Fortunately, appropriations have been granted for this program.

To withhold growth on medians, arilbreds and tall bearded next spring, winter storage will be in cold frames located in lath houses where shade should help to hold down spring temperatures. These plants will be heavily mulched, and then covered with pliofilm to hold in cooler conditions and aid retardation of growth.

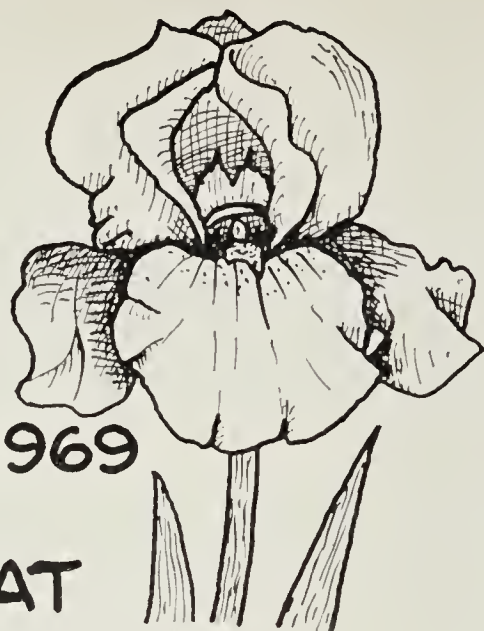
The Japanese, Siberians and spurias, being later bloomers, will again be carried over the winter season in the storage area, and started into growth at an early date—June 7 being the flowering target date.

The arils that survived to date were left undisturbed in 10" clay pots this year. They were left to go into dormancy indoors in the dry potting area of the greenhouse range. Last year these plants were repotted, and though dormant as to top growth, had extensive root growth. There was failure to bloom last year, and it is attributed to this disturbance. There has been no repotting this year. Plants were left to go dormant and kept indoors, with no water administered until November 1. With only the moisture available in the atmosphere (there was no contact between the clay pots and the floor; pots were placed on metal seed cans to four inches above floor level), healthy dark green foliage began to appear at this date. Knowledge of the culture of the aril species has been very limited locally, and the first few years of experiment were all trial and error. This program could not have been embarked on without the liberal support of Aril Society members, who have provided us with the varieties to work with. John Holden of Ridgecrest, Calif., assisted us in securing the varieties. Many of these varieties have bloomed for us, and fortunately we have color slides to refer to and enjoy. We will try to have as many as possible of these entrancing blooms for the convention.

This is a fascinating feature which requires much attention. When the conditions required for each type, which is a study in itself, and the facilities are available to meet these cultural necessities, all types can be brought into bloom; but the enigma of delaying or hastening the bloom is the intriguing part, and cannot be accomplished in one year.

I know of no grander setting for an indoor planting of all these various

Milwaukee
awaits you



A I S JUNE 4th.5th.6th.7th.1969

WE WILL ALL MEET AT
CONVENTION HEADQUARTERS
THE
SHERATON-SCHROEDER HOTEL

SPECIAL RATES -

FOR

A I S CONVENTION GUESTS
YOU NEED PAY NO MORE

SINGLE ROOM \$ 9.50

TWIN BEDS \$ 13.50

INCLUDES PARKING AND FREE ICE

ROOMS AGREED UPON MUST BE PROVIDED ALL
ATTENDING AT THESE RATES WHEN DESIRED.

SEND RESERVATIONS
TO

SHERATON-SCHROEDER
HOTEL

509-W. WISCONSIN AVE.
MILWAUKEE, WIS. 53203

ATT.-
RESERVATION MGR.

ADDITIONAL RATES

SINGLE
\$ 11.00 - \$ 12.50 - \$ 14.00

TWO PERSONS
\$ 15.00 - \$ 16.50 - \$ 18.00



R.M.R.

types of iris in full bloom than the Exhibition Dome of the Horticultural Conservatory. We shall persevere to accomplish this goal of full bloom to the fullest extent possible, working with conditions as they prevail and benefitting from our accumulated experience in the conduct of this program.

BE OUR GUEST --- MILWAUKEE 1969

Edith M. Kimber

On June 4 through 7, 1969, the Wisconsin Iris Society and the Milwaukee County Park Commission will welcome the registrants of the annual American Iris Society National Convention. Main event will be the presentation of the guest iris central planting of the Alfred L. Boerner Botanical Gardens in famed Whitnall Park.

Represented here are irises of all types which can be acclimated to this area: the early miniature and standard dwarfs, intermediate, border, and miniature tall bearded, arils and arilbred, Siberian, spuria, Japanese, several species irises, and of course, a preponderance of the tall bearded. About 1500 varieties occupy twenty-one new beds of virgin soil, spaciously laid out in a high, well-drained section of the park. Trees and shrubbery provide a natural background, but are distant enough to offer no competition for sunshine, water, and soil nutrients.

Most of the early types of irises planted here will be through by convention time, but the controlled culture program by the Park Commission Greenhouse promises to bridge the blooming date gap by retarding the earlies and forcing the late types. This convention premiere will be on display at Mitchell Park Horticultural Conservatory—the Domes. (See article, "Controlled Culture Program", this issue of the Bulletin).

Another famous first will be the Award Beds, commanding an eminent place in the Boerner central planting, and featuring recent Dykes Medal winners, and Awards of Merit and Honorable Mention granted in 1966, 1967, and 1968. These beds set a fine criterion for comparison. We express our gratitude to hybridizers and growers who made these extra contributions.

Of the others in the twenty-one bed central planting, at least one rhizome of every variety sent is represented, so that all hybridizers' creations would receive equal and ideal cultural conditions. For the most part, guest irises received have been very new introductions and seedlings grown under number. Of course, by convention time many of these will have been named, and so indicated on garden markers. At present, the Whitnall Park planting has been fenced off and is not accessible to the general public. As a protection against educated vandalism, individual plants are unmarked, but are completely plotted on paper. Prominent identification will be placed immediately prior to the convention. A full day is planned here at the park.

Supplementing the Boerner Gardens are six fine private plots tended by experienced and talented member gardeners. You will see duplications of about 700 of those in the central planting. But here's the punch line—the Milwaukee area offers a wide range of peak iris bloom, contingent on

proximity to cool Lake Michigan. Hence, an early variety may be yet in bloom at a garden near the lake, and a late variety advanced enough to show at still another garden in a warm location. All six of these, the central planting at Whitnall Park, and the hotel and meeting area in downtown Milwaukee are within a half hour's drive of each other. Won't it be fun to spend more of the time looking at flowers!

It was very gratifying to hear from the smaller hybridizer-hobbyists, many of whom in sending their iris developments, informing us that they also planned to attend their first convention here in 1969. Our bloom season is later than most of the country. Iris enthusiasts around the nation will have finished their pollinating, and other pressing spring chores.

Come to Milwaukee for a second spring, and top it off with a Wisconsin vacation. We like it here!

The Iris Motif In Art At Milwaukee

Clarence Protzmann

Through the centuries the iris motif has been prominent in the art of many civilizations, but lately art objects using irises are often collectors' items of another day. With the rich palette of iris color and the grand simplicity of its form, we hope at Milwaukee to be able to start a renaissance of the use of irises in art. With that in mind, and conscious of the facts that there is greater use of irises in art than appears in art shows and galleries, and that there is a growing desire to see iris art objects, artifacts and antiques, we are assembling an art and education show in connection with the Milwaukee meeting.

Art forms that already have been entered and which will be on display include wood carvings of irises raised out of mahogany and maple blocks, finished in natural colors, hooked rugs, paintings, photography, original art ideas and various other forms.

It is not too late for you or your friends to send your artistic handiwork for this presentation. Just write the person representing the Section your art work relates to, or write directly to Robert M. Reinhardt, 14151 W. National Ave., New Berlin, Wis., no later than March 15, 1969, telling what will be sent, and giving dimensions as to size. Shipment of the objects can be made to May 1, 1969. While these objects are on display, June 4-15, they will be under the protective insurance provided by the Milwaukee County Park Commission.

Educational material or suggestions should be sent to the Sectional Chairman. These must be submitted so as to be received before February 1, 1969. WE HOPE THAT WE CAN START A REVIVAL OF THE IRIS FORM IN ART.

SECTIONAL CHAIRMEN

Aril Society: Mrs. C. R. Foster, 321 Montecito, Sierra Madre, Calif. 91024

Mr. John Holden, Rt. 1, Box 3770, Ridgecrest, Calif. 93555

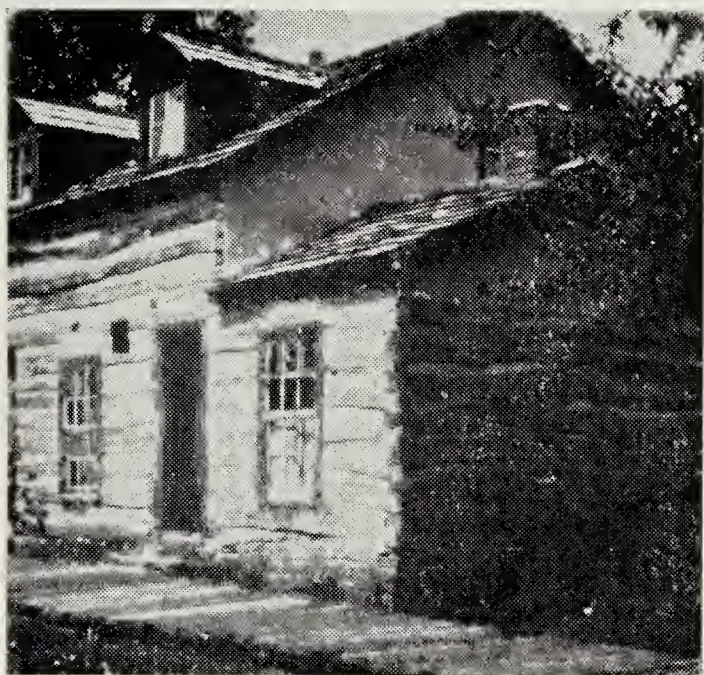
Louisiana Iris Society: Mr. V. R. Pittman, Jr., 4225 Forest Dr., Port Arthur, Texas 77640

Median Iris Society: Mrs. Jean A. Witt, 16516 25th St., N.E., Seattle, Wash. 98155

Siberian Iris Society: Mr. Larry Harder, Ponca, Nebraska 68770
Society for Japanese Irises: Mr. Eugene Wagner, 110 Kossuth St., Columbus, Ohio 43206
Spuria Iris Society: Dr. Clarke Cosgrove, 8260 Longden, San Gabriel, Calif. 91775
Mr. Ben R. Hager, Rt. 1, Box 466, Stockton, Calif. 95205
Tall Bearded: Mr. Edward Varnum, 550 Princeton Ave., Villa Park, Illinois 60181
Mr. Lerton Hooker, 117 W. Greenfield, Lombard, Ill. 60184

WICHITA KANSAS BOUND

Mabel Clare Jendel



Munger House in Historic
Cow Town

The Wichita Area Iris Club will host the 1971 convention of the American Iris Society. When the guests convene in Wichita, Kansas, from the East, West, North and South, they will find a warm and exciting welcome from the middle of the United States—the Air Capital.

The Wichita Park Department is opening one of its newly developed city parks with a whole peninsula between two lakes landscaped into a tremendous iris garden. There, everyone, uninhibited, can view with comfort and enjoyment all the new introductions of the year. Hybridizers will be happy to see their introductions and seedlings under the control

and care of experienced park personnel with the cooperation of the local iris gardeners. Mr. John L. Firsching, who will direct the supervision of this garden, is a post-graduate of Columbia University, Rutgers University, Wagner College, New York Botanical Gardens and Chief Architect of the Tripler General Hospital, Hawaii.

One of the master gardens of irises will be in the Bartlett Arboretum at Belle, Kansas, where flowers, shrubs and trees from all over the world have been brought and grown for their startling beauty.

For visitors who prefer private gardens, there will be both large and small, with plenty of irises, new and old. These gardens, besides featuring irises, will have a restful atmosphere with a chance to relax and visit and just take in the beauty of the surroundings and the gorgeous Kansas climate.

Our renowned Cow Town will also give the visitors a chance to see historical Wichita and a bed of historical iris originations of this era.

The Wichita Area Iris Club will present its annual iris show of exhibition iris and these will indeed be an attraction.

PLAN YOUR WICHITA VACATION NOW!
Convention '71 Wichita!

MOUNT CLARE IRIS GARDENS

3036 N. Narragansett Ave.

Chicago, Illinois 60634

Since 1941 Home of the Aril Iris of the Great Lakes Region

1968 Introduction

RADIANT SMILE. Arilbred. 24". Sdlg. 66-2. E-M. White standards; bronze falls; brown beard. Large clear maroon signal. An arilbred with real class and personality. Received an HC in 1968 as a seedling. DARDANUS X KALIFA KASHAN\$25.00

1966 Introduction

BIG BLACK BUMBLEBEE. Arilbred. 24". E-M. Sdlg. 65-4. Standards deep amethyst-pink, veined darker mulberry; falls similar but darker; beard bronze. Black signal. THESUS X Wo 1 sdlg. (C. White). Here we have an arilbred that has as clear a signal as any pure onco. The name was given because from a distance the signal looks like a large bumblebee sitting on the falls. It is extremely hardy and easy to grow. Does not go dormant and increases rapidly. Received an HM in 1967 and last year it was the Judges Choice for an arilbred with 50% or over aril blood. BIG BLACK BUMBLEBEE is three-fourths aril blood\$10.00

Below we are listing a number of pure arils which will be listed in our circular of 1969, BUT order must be in before July 1 to assure delivery.

ANCILLA	H. BRONZE BEAUTY	SYLPHIDE
AMPHION	H. PURPUREA	STOLONIFERA
ARTEMIS	IBERICA	STOLONIFERA-
ATROFUSCA	ISOLDA	LEICHTLINII
ATROPURPUREA	KOROLKOWII	STOL. ZWANENBURG-
CHIONE	KOROLKOWII-	BEAUTY
CLARA	VIOLACEA	STOL. VAGA-
CAMILLA	LORTETTII	COMPACTA
DARDANUS	LUCIA	SUSIANA
ELVIRA	MARIAE	THESEUS
EUNICE	MERCURIUS	THOR
GATESEII	PERSIAN BRONZE	TURKISH TOPAZ
HOOGIANA	SAMARIAE	VERA

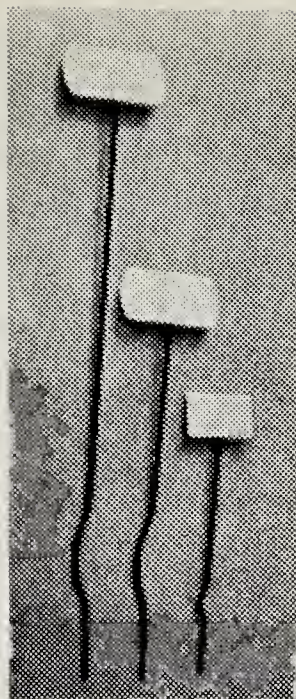
Aril Slides

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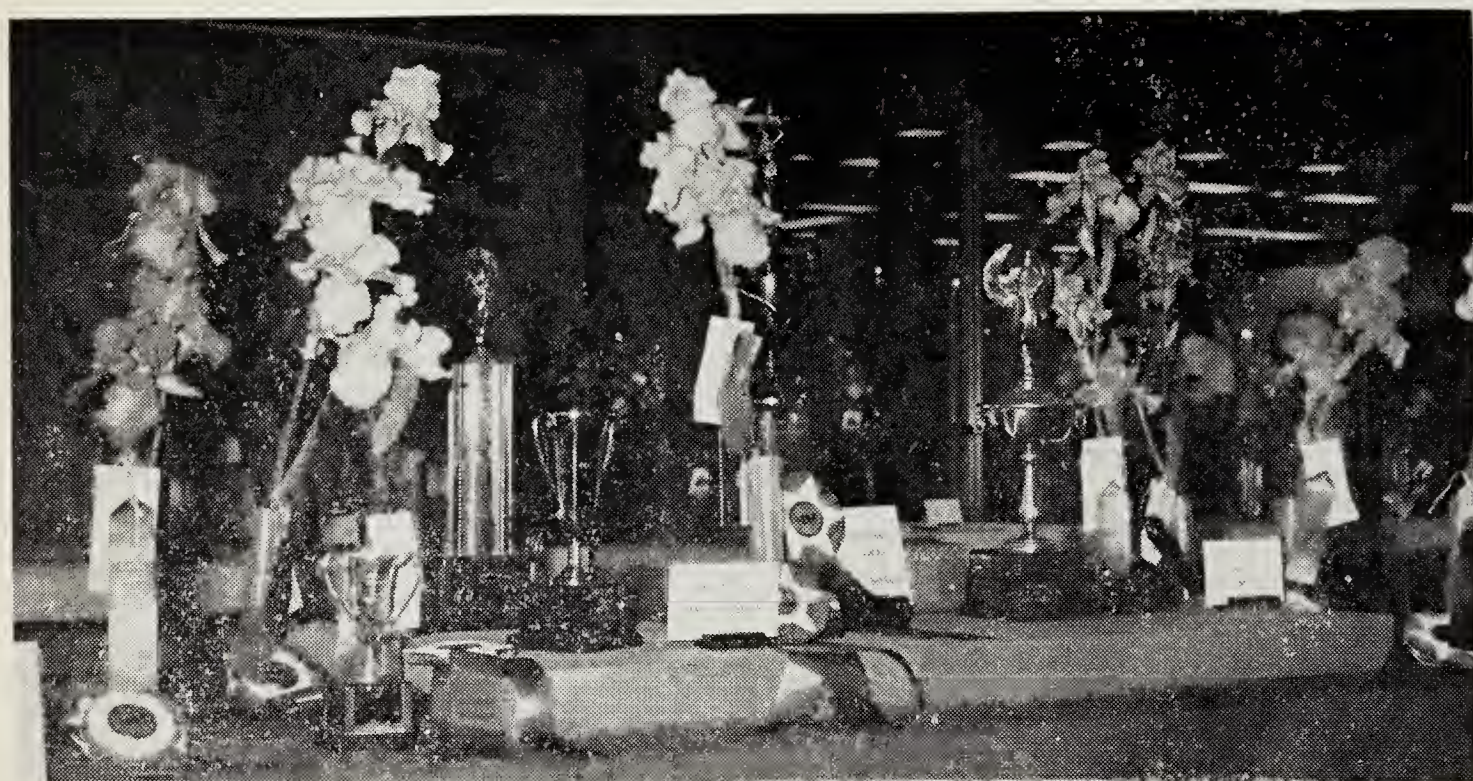
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THE IRIS SHOW

Mrs. W. E. Burten

I know of no better way to gain an appreciation of irises than to grow them for show. Quite often irises entered in a show are passed over because the grower was careless in his selection, or failed to groom properly his material.

If you decide to enter a show please read the show rules and study the program. A complete knowledge of the show rules and the limitations may make the difference between a blue ribbon and the disqualification of the show for the silver and bronze medals.



Court of Honor — Southern Michigan Iris Society Show

Three weeks before the show start looking in your garden for three- or four-way branched bloomstalks. When you have found some, stake them to maintain an erect stalk. As show date nears keep watch of the bloom. If it appears to be opening too soon, cut the stalk and place it in cold water in a cool dark area out of a draft and anchor it in an upright position. Change the water every day to cold water. I used ice cubes this spring on a specimen stalk and held four nearly open buds for three days, and took the specimen to the show on the fourth day. At 11:00 a.m., when the judging started, three of the blooms had opened (bragging a bit, but I won the Award of Merit, a much coveted ribbon in the horticulture class of Federated Garden Club shows, with the iris specimen).

If you decide to enter the show just the day before, cut your specimens early in the morning or the night before. Select specimens in prime stage of development, firm erect stems, foliage free of insect damage, well-developed buds and open bloom of good color. Pick extra specimens in case of accident. Remember that if you enter foliage with your specimen it too is judged. Wash the stems and leaves with a piece of nylon dipped in water.

I have heard of people using milk to wash the stems and foliage; I never have tried it.

If you have a stalk on which a bloom is *passee*, remove it carefully and close up the sheath. Do not leave any nubby ends. Label all specimens with your name and the name of the iris; write legibly in case someone is helping you to get your entries in place. The person exhibiting should arrive at the show place in ample time to get his entries through entries and classification channels.

How often have you gone out to the garden and cut a nice iris specimen, got it wedged nicely in the bottle and in the carrying crate, carried it to the door of the car and tried to get it into the area where the back seat once had been, only to find the stalk was four inches taller than your space? Enough said! Measure the space in the car before you pick that specimen.

Iris carry best in an upright position. Many use milk bottles in milk carrying cases; others use large soda bottles in cases; others use pails covered with hardware or chicken wire spread over the top; others use large florist boxes and put ribbon strips through each side near the top and the bottom, and lay the specimen stalk on the ribbons after wrapping the nearly open blooms with green florist paper. They then pull the ribbons through a second hole over the top of the first and then over the stalk and tie the ribbon. Thus you may carry two or three specimens in one of these boxes.

Now let's go to the show! What kind of lighting does the show room have? Are the lights way up in the ceiling; are there means of spotlighting areas; are there dark draperies at the windows, thus cutting down on lighting? In short, staging and schedule, the twins, can make or break a show, and are largely dependent on the choice of a show place. Some places to have shows are memorial centers, museums, school gyms, bank lobbies, halls, church rooms, empty stores, garden centers and car display rooms. The place you plan to have your show should be easily accessible to the public, with plenty of parking room and no stairs to climb carrying specimens. Have a place to just sit and rest for a minute. Have water available for arrangements and specimens, as well as extra tags, pins, scotch tape, hammer, stapler, etc.

I guess staging is my pet gripe! How many of you have gone to a show, and when you walked in the door the entire show is there before your eyes—milk bottles with construction paper covers, all stuck up in a row on one level, dividers for arrangements all light green and of the same size, and all in a straight row, too. Not much originality, is there? Why not create a bit of mystery about the show by having your entry a truly focal point and a means of dividing traffic? Create a feeling of suspense and the desire to see what is back of this area! Have your focal point explain the theme of your show. An example could be "AROUND THE CLOCK WITH IRISES." Make a big clock face and insert irises through holes where the numerals usually are. Use smaller irises for the hands. Large pieces of cardboard usually are available at packing places where mattresses are sold. Flank the two sides of this clock with burlapped arborvitae, brought in from a nursery. Use artificial grass, like that they use at cemeteries, in and around the base of this clock face and arborvitae. For

protection, the whole setup might be kept free of traffic by the use of a low rope supported in a half circle, and thus also giving you a traffic pattern either to the right or to the left of this focal area.

Now that we are through the entrance, let's take a look at the same old dividers and see what we can do there. To get a visual idea of what a change a different colored background in a divider can do, or what a different shaped divider can do, be drastic and CHANGE. Try your arrangement before a draped piece of white cloth, then a black, then a red; then line the back of the divider with the reverse side of gold or silver foil. Try it before a mirror background, provided you have finished your arrangement on all sides. This is all using the same old size dividers. Have a class in the show schedule for doing an arrangement in a horizontal divider (it can be done; I've seen it in a Boston show.); try a truly vertical divider; try a divider with a copper background; try one with a section of dividers with burlap background. Let's get out of the rut of the same old light grey-green dividers.

What about a corsage class? This can be staged on pegboard covered with velvet, in picture frames, on glass risers, on dummy model hands borrowed from the stores, on purses or on easels with a board covered with material. Don't forget the arrangement class "For Men Only", or the section for juniors or the section for non-members.

Educational exhibits might be how to divide a clump of irises; a result of cross pollination with seed pod, seeds, first, second and third year seedlings, the parents and results; an iris borer and the stages it took to get to be a borer, the results of its work, and the material to use to get rid of the "critter"; culture sheets on irises; viewer with slides of local gardens and how to landscape with irises; a march of time exhibit with the Dykes Medal winners; catalogs, newsletters, bulletins, invitations to join, lists of iris auctions, list of local gardens open to the public and mark the gardens that will sell irises; iris books; iris insect repellants and fertilizers best for irises; a microscope set up with chromosomes on a slide, with an explanation; a list of companion plants and how to plant irises. Educational exhibits should be in an area where people may stop and study them.

GROWING JAPANESE IRISES

W. E. Ouweneel

The pleasures of gardening with Japanese irises in the United States are not confined to North or South, East or West. They are grown along the Pacific Coast, from border to border. They are also grown throughout the entire Central and Eastern parts of the country. Some sections, however, because of soil or water characteristics, do have problems. More on this later.

This article is limited to garden culture. Those interested in pot culture, which at times may be helpful in solving garden problems, may also read the article on that subject starting on page 77 of the April, 1968, issue of the AIS Bulletin.

As the name implies, Japanese irises were originally developed in Japan. Lying within a latitude range of thirty to forty-five degrees, its climate is quite similar to that of the United States. With the leading hybridizers in this country having done their work in the northern states, these plants

have proved perfectly hardy as far north as the lower provinces of Canada.

Ideally, Japanese irises love full sun, rich, humus-loaded soil and a steady, dependable supply of water, especially prior to blooming. Few of us, however, have ideal conditions. Thankfully, they are not essential conditions.

Full sun helps produce the best over-all growth and health of the plants. Most flowers are not affected by midday sun. Partial shade during the hottest part of the day may add a day to the lives of the few more delicate blooms.

Japanese irises may be grown successfully with an average annual rainfall of thirty-nine inches without other watering. The amount of rainfall at which watering is necessary depends on soil conditions and the degree of satisfaction desired from the flowers. They are grown successfully and enthusiastically in San Diego, California, with an annual rainfall of eleven inches, but with frequent watering. If Japanese irises are planted near a body of water, they should be placed about a foot above the water level. Plants can be placed at water level without loss, even though frozen solid in ice during the winters, but little increase is likely.

Soil for Japanese irises should, preferably, be heavy, probably because of the greater ability of such soil to retain water and fertility. They may be grown in sandy soil, however, if water and fertility requirements can be adequately compensated. A loose loam is probably best. Organic matter, such as leaves, compost, peat moss and well-rotted manure, should be incorporated in the soil, if possible, when the bed is prepared. If the soil is not at least slightly acid, a pound of two of sulphur dust per one hundred square feet should also be added. If sulphur is used, the soil should be checked several months later to be sure that acidification has been accomplished. In order to maintain acid conditions, beds should not be prepared where they will receive run-off from crushed limestone walks or drives or similar sources of alkaline materials. In one locality Japanese irises cannot be grown because of dust from adjacent cement plants. Japanese irises are not compatible with lime and other alkaline substances.

Rhizomes, when shipped, should be free of all soil, other foreign matter and dead plant material. They should carry a healthy growth of live (white) roots which should show no signs of dehydration when received. In shipping, best practice is to soak the rhizomes after cleaning, remove excess water by air-drying or slinging and enclosing the roots and rhizomes in a plastic bag. Moist packing material may be enclosed. Foliage should not be included in the bag. Plants should be shipped in ventilated cartons, packed so that the plants cannot tumble in them. They should then be shipped immediately by the fastest available method. Air parcel post is best for long distances. The containers should bear State nursery inspection certificates and Federal quarantine inspection certificates if required.

When received, rhizomes and roots should be soaked overnight in water. Rootone may be added to the water. They should be planted early enough in the growing season so that plants can become established by winter. In Canada and the northern States this probably means that spring planting is best. South of that area planting may be done in September and early October.

The soil in which rhizomes are planted should be finely broken up. As with any other plant, the roots should be spread and the soil worked be-

tween them. When planting is completed, the rhizome should be about an inch below the surface of the bed. No chemical fertilizers should be used at the time of planting. If possible, plants should be spaced two to three feet. With wider spacing, they will grow better and require division later.

After planting, the plant should be well watered and kept moist until winter in the case of fall planting, or until growth is established in the case of spring planting. Mulching will help to retain water. Mulching should definitely be used during the first winter if the ground is subject to freezing. The mulch should be a loose material, such as ground corn cobs, shredded bark or peat moss. Leaves should not be used because they tend to pack tightly and interfere with the growth of the first leaves in spring. Wheat straw should not be used because it may introduce wheat rust.

Once growth has been established, care depends on local requirements. Plants should be watered, fertilized, mulched and sprayed as needed.

The need of water will obviously be determined by the over-all condition of the plants. As noted earlier, watering is especially helpful prior to blooming.

The amount and the formula of fertilizer used should, if possible, be determined by analysis of a soil sample. State agricultural schools frequently do this for a nominal fee. In one highly successful planting in muck, soil analysis showed about 300 pounds each of K_2O and P_2O_5 per acre. Such quantities are high compared with most soil analyses and should not be considered necessary. If a planting is growing well, a fertilizer with a low nitrogen content, such as 5-10-10, used lightly, will probably suffice. One should, as much as possible, determine fertilizer needs by soil analysis and plant symptoms.

The frequency of division depends on the vigor and flowering of the plants. Blooms usually are best in the second year. Plants should probably be divided at least every four years. When a plant shows signs of crowding (small and few flowers, undersized foliage), dividing is overdue.

The pests which attack Japanese irises are the same as those which attack other garden plants. Stem borers, bud borers, chewing insects and thrip will probably be found in most gardens and may be controlled in the usual ways. In the Northwest a local pest is slugs for Japanese irises as well as for other plants. Japanese irises are not susceptible to any special pest.

Japanese irises are not subject to rot. Rust, apparently from wheat straw, appears occasionally. Under damp conditions leaf spot may appear. There seem to be two systemic diseases which appear in isolated plants. In one the symptom is blighted foliage, in which leaves become straw-colored, starting at the tips, and finally shrivel up. In the other the leaves are distorted, streaked and runty. A plant may suffer from this condition for a season or two and finally succumb. Nothing is known about the causes of these two symptoms. Treatment with Agrimycin or Terrechlor has been reported to have some success. One step that can be taken is to cut out an affected rhizome with its roots as soon as one of the symptoms appears.

Hybridizing irises is done using the same methods as used for bearded irises. Seeds may be planted in open beds, cold frames or flats. Seedlings may be transplanted to beds early in fall and treated as new rhizomes.

SPURIAS ARE EASY TO GROW

Archie Owen

Spurias are easy to grow. There are a few simple rules to follow. Select an area with well-drained soil in a sunny location. Work in humus such as compost or steer manure. Set the rhizomes two inches below the ground level. Arrange them in groups of three, twelve inches apart and in clumps eighteen inches apart for quick effect. They will form large clumps if left undisturbed for several years. Water copiously to settle the soil. Keep the soil moist at all times. Spurias like lots of moisture during their growing season. During the summer months reduce the water so the plants will have a rest. In some areas, as Southern California, the plants are permitted to go totally dormant by withholding water during July and August. When the leaves are eight to ten inches high in the fall, apply a balanced commercial fertilizer. Fertilize again in the spring. Superphosphate is a good fertilizer to use.

Divide spurias just at the close of their dormant season, the last of August or early September. In warm areas they may be divided as late as October. However, if they have sent out much growth, they may lose their leaves and slow down growth. Keep the roots damp at all times. If dividing clumps in your garden, only dig those that you can plant immediately, unless you have permitted them to go completely dormant. If you must leave them out of the ground, pack them in moist fir bark; or they may be left in a pail of water for twenty-four hours.

When dividing a clump, dig a short way from the clump so as not to disturb the growing ends of the rhizomes. Select the best firm rhizomes for replanting. Discard the older center pieces. Cut the leaves to eight inches above the rhizome if they have grown taller. Fibrous roots of the rhizome may be cut to two inches from the rhizome. It takes two years for a spuria plant to become established. Usually, if properly planted and cared for, there will be one bloomstalk the first year. The second year there will be a few bloomstalks; and after that, if left undisturbed, there will be many.

Spurias are remarkably free of disease. Usually well-grown plants will give no trouble. One disease that sometimes appears in summer is mustard seed fungus. It is found at the base of the leaves where they are attached to the rhizome. It appears as a white filament with small sporangia that look like mustard seed. A solution of formaldehyde (one tablespoon to one gallon of water) or a fungicide poured over the base of the leaves and rhizomes will stop growth of the fungus. Virus occasionally occurs in spurias. So far no prevention or cure is known. If the plant blooms well, keep it. If not, discard the whole plant and start again in a new area.

Spurias have several points worth considering in addition to their ease of culture. They will grow well without dividing for years. They have sturdy stalks; no staking is necessary. The newer varieties have large flower parts, making for a colorful display in the garden. They lend themselves as a background plant for the perennial border, growing four to five feet tall. As a cut flower they vie with the Dutch iris. They can be cut while in bud and are long lasting. Flower arrangers love them. They bloom along with and a little after the tall bearded iris, thus extending the

blooming season. Spurias are available in a variety of colors; white, cream, yellow, orange, lavender through all the blues to dark purple, bronze through brown to almost black, and even approaching red.

If you do not grow spurias in your garden try a few this year. If you do grow them, try a few of the newest varieties; you will be surprised.

BEST IN SPURIAS

Archie Owen

Spurias have come into their own this year. At the Berkeley convention, they were blooming in the gardens and getting a fair share of attention. For those who grow spurias and others who would like to try, the following may prove helpful in making selections.

DAWN CANDLE (Ferguson '65). Standards light brown; falls light yellow and ruffled. Standards erect. Flowers have good substance. Several flowers open at same time. Makes fine show stalk. Blooms early; continues into mid-season.

FAROLITA (Hager '66). Lovely lavender-blue; bright yellow signal. Good substance. Standards semi-erect. Falls slightly ruffled. Good branching. Midseason bloomer.

FAIRFIELD (Ferguson '67). Large sturdy spuria. Standards white with bluish cast. Falls same color with large yellow signal. Standards erect; very wide, at least two inches. Falls also very wide and do not tuck under. Four branches and terminal. Branches, 12" long, show a tendency to branch, with at least two buds on each branch. This spuria seems to be setting a new trend, with long branches and wide flower parts of extra heavy substance. If you want something new in spurias, try it.

HIGHLINE LAVENDER (McCown '68). Lovely deep lavender with wide, erect standards; falls slightly ruffled and not reflexed. Flower parts are held closely at the base, giving a cup effect. Beautiful show stalk.

CONNOISSEUR (Hager '66). Different color in spurias, soft copper beige. Flower parts are not held stiffly upright, but give a butterfly effect. Flower is large. Four bud placements. Plant is about 36". Produces many fine increases. Very good for flower arrangements.

BARITONE (Ferguson '65). One of the best browns. Standards dark chocolate; falls brown with bright yellow signal. Falls oval in shape and present a broad surface, making a showy clump in the garden. Grows well, producing many bloomstalks.

CHUMASCH CHIEF (Walker '64). Dark brown erect standards; falls brown with velvet sheen. Yellow signal. Yellow at base of falls and standards gives a glowing effect. Blooms above foliage.

ARBITRATOR (Ferguson '66). Blue with large yellow signal. Good flower form. Blooms well above foliage. Striking clump in garden.

NEOPHYTE (Hager '64). Blue standards; cream falls with blue veining. Unusual color combination. Grows tall; produces many bloomstalks. Good foliage.

CONTRADICTION (Ferguson '63). Brown standards; falls bright yellow with chocolate veining. Strikingly different color effect. Proving to be good parent.

ELIXIR (Hager '64). Bright orange. Flowers rather small for newer spurias, but several open at once, giving a handsome effect to the clump. Stalk well-branched. Excellent grower; produces many bloomstalks and increases. Good subject for perennial border.

In any list of best spurias, one must not forget two older ones that still are the best in their color range.

DRIFTWOOD (Walker '56). Chocolate brown, round falls that present a full face to the viewer. Blooms during midseason. Proving to be a good parent.

GOLDEN LADY (Combs '57). Golden yellow. Prolific grower and bloomer with three and four bud placements. Beautiful clump in the garden. Blooms over a long season.

Weed Control In Seedling Beds

H. E. Briscoe

Somewhere in the dim past man came out of the forest as a hunter and became a tiller of the soil. Since then his dream has been to grow the desired plants, and prevent the undesirable ones from becoming established. This is weed control.

Even in this advanced age this dream has not been fully realized. Until a few years ago, control was accomplished mainly by sweat and steel. Of late years man has added chemistry to his weapons.

In using chemicals for weed control two general approaches are used. One of these kills the weed; another prevents the seed from germinating and developing.

The following are some of my experiences with preemergence (preventing seed development) weed control.

To date I have not found a perfect preemergence for daylilies and irises. The iris seems to be the most sensitive to injury. I have used about everything I could find that is used for other crops.

The three that gave me the best all-around results were Dactal, Ramrod and Treflan. Treflan in some instances looked promising.

Dactal gave good results with no apparent injury. Weeds started coming late in summer. Second application in July worked well.

Ramrod (granular form) did very well with no injury. It was applied up to a granule every one-eighth inch. The residual was somewhat better than Dactal. Both Dactal and Ramrod need to be rained in within four or five days.

Treflan must be worked into the soil after application. It does not depend on rainfall. It gave good, safe results at one, two and three times the recommended amount.

All of the above gave good control on most grasses. All preemergents I have used gave good control on some weeds, but poor on others. This means that your choice of a herbicide will depend on the weeds you are trying to control.

It is desirable that herbicides have a 3X factor; that is, the chemical will do the job and cause no difficulty if used three times recommended amount. This is needed with the average gardener's poor methods of cali-

bration and application. We now have some excellent chemicals that have very narrow margins of safety.

Because different soils need different amounts of the chemical, and because of the difficulty of accurate calibration and application, recommending amounts is impossible. Follow the directions on the container, and consult with your Extension Agent as to the type of soil. Then experiment and keep records.

The chemicals we are using today were developed for such crops as corn, cotton, etc. If we had the demand of these crops, the industrial chemist would find individual chemicals for daylilies and irises.

To date there seems to be no perfect preemergence for daylilies and irises. But they will keep weeds under control to where finishing the job with a cultivator is a relatively simple job. I feel sure that some day a chemical will be found that will do an almost perfect job for our plants. This field is yet in its infancy. We have to learn as to the long-time effect on both weeds and our plants. Yet we can dream of setting a row of seedlings and see them bloom without weed competition.

AWARDS AT FLORENCE — 1968

- | | |
|---|---|
| <i>I Premio</i> , BEWITCHING, Lyon | <i>VI Premio</i> , APRIL MELODY, Gibson |
| <i>II Premio</i> , RADIANT APOGEE, Gibson | <i>VII Premio</i> , 21-OPLE, Gibson |
| <i>III Premio</i> , EURODINE, Stross | <i>VIII Premio</i> , 4361, Sexton |
| <i>IV Premio</i> , PRIMETTA, Specht | <i>IX Premio</i> , M.61/2B, Tubbs |
| <i>V Premio</i> , R.62/2B, Tubbs | <i>X Premio</i> , NIGHT MUSIC, Pickard |
- Cup of Florence Cup* (Most original color), LILAC CHAMPAGNE, Hamblen
- Louise Branch Cup* (for best branching), 61/110Z, Fletcher
- The Howell Cup*, R.62/2B, Tubbs
- Piaggio Cup* (Best early variety), VILLA SHIMMER, Gibson
- Balbi Valier Cup*, LUZON CROSBY, Muhlestein

THE PHILOSOPHY OF AN IRISARIAN

Dr. W. E. Jones

Have you ever analyzed your reasons for growing irises? Such a group exercise would reveal dozens of reasons, with numerous personal ramifications. If this seems to be an overstatement, try this suggestion. At the next local society meeting share your reasons with fellow members. In addition to proving the above thesis, it will also prove to be a very enjoyable aside.

To get you started, consider these reasons shared at a recent meeting in Region 22.

Esthetic This is perhaps the most obvious reason — they're beautiful! No other flower possesses the color potential of our "first love". The varieties of form to be achieved are virtually unlimited—domed, closed,

cupped, flaring, horizontal, ruffled, fluted, etc., etc. Pleasing form may vary from tall bearded to aril. "To beard or not to beard, that is the question" asked by apogon fanciers. This reason also involves the plant itself (purple-based or blue-green), branching and fragrance. This exercise is endless.

Historical Interest The iris is one of the oldest cultivated garden flowers. Consider the suggestion that the "lilies of the field" (Matthew 6:28), honored by Jesus, are today called *I. pseudacorus*. Or perhaps you prefer the patriotic attachments of the *fleur de lis*, "flower of Louis," the emblem of many French kings, as well as a part of the banner of the famous Florentine House of Medici. Add to these the sentimental attachment of the virtues Courage, Hope and Loyalty, to the three-fold flower parts of the iris. And who could fail to thrill at the more recent chapters written by John C. Wister, Monsieur Lemon, Bertram Farr, W. R. Dykes, Hans and Jacob Sass, and a host of others who "put the iris on the map."

Creative and Scientific A number of excellent hybridizers, past, present and certainly future, attest to the joy of discovery awaiting the scientist or experimentalist. The interesting and thrilling genetic combinations have by no means been exhausted. Untold gratification yet awaits the student of the iris. May the bird of paradise fly up your rows!

Artistic Some find their greatest moments in arranging. Most societies have yet to motivate their membership and fully tap this resource for added show beauty.

Showmanship There is a bit of the "ham" in all of us, and the spirit of competition grows keen around show time. One may think of shows as the sharing of the fruits of our labors with others. Cultural perfection becomes a challenge to us all. When the spirit of competition becomes most fully developed, some train to judge the efforts of others in order to reward excellence.

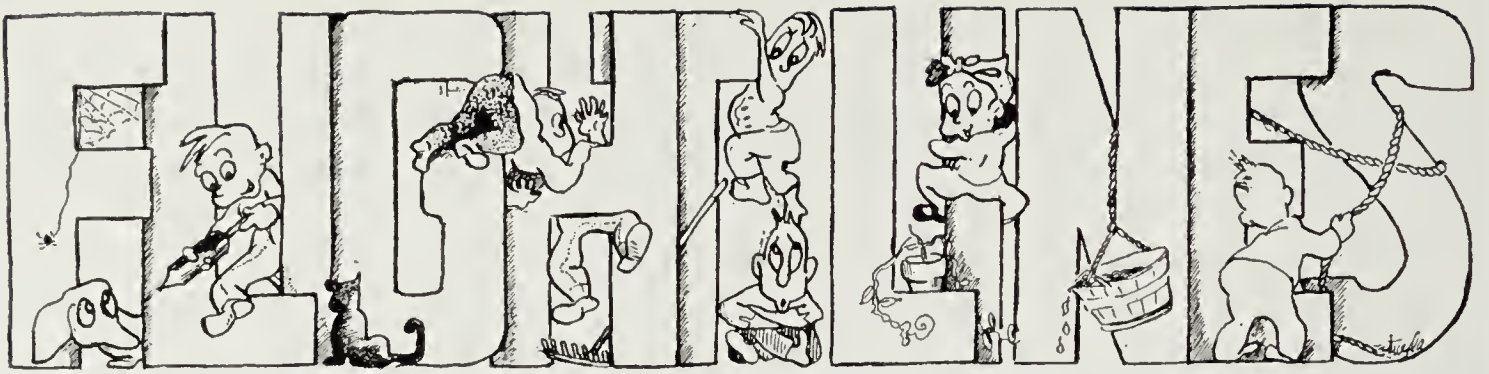
Adventure Join the species hunter as he (she) revels in an unexpected discovery. Who knows what beauty may be "just around the corner?" Furthermore, one must not overlook the adventure of annual iris treks to other gardens, near and far.

Domestic If you have not considered a Junior Division in your local society you should do so. Many surprising things have been contributed by our youngsters, and many a proud parent has beamed when a son or daughter captured the Junior Queen of the Show trophy.

Photographic The "shutter-bug" finds the iris a real challenge. There are so many vantage points for iris photography, and true beauty may be captured on film that would otherwise be missed. Such endeavors are enjoyed again and again, perhaps at local meetings or at the fireside on a wintry night.

Fellowship Hop aboard that Convention bus and grab yourself a sizeable chunk of chatter! Here one makes new friends and catches up on the latest with old friends. Get that reservation in soon.

The above suggestions have but scratched the surface, but the rest is up to you. Dig deep — it's worth it!



ROBIN PROGRAM NEWS MEMO

RVPs Note! Mrs. Fletcher (Judy) Bell, popular chairman of the Regional Robins Division, has resigned that post to vacation for awhile from administrative responsibility after a decade of service as a TB and Regional robins chairman. Judy has done an *enormous* job. She has turned the office over to Mrs. Hoyt (Edith) Smith of Little Rock, former head of robins for Region 22. The Regional Robins Division is set up to assist the RVPs in organizing and administering Regional Robins. The RVPs appoint Regional Robin Representatives to promote interest in *all* robins, both within Regions and in the many special interest divisions.

The fastest way for new AIS members to get to know about irises and to know iris people, and for old ones to refresh their contacts, is through robin membership. Mrs. Joseph A. (Jean) Witt, President of the Seattle Iris Society, MTB Robins chairman and one of the most knowledgeable and enthusiastic irisarians in all AIS, wrote this promotion piece for her Region 13 Bulleting (which sums up our sentiments exactly!):

There's more to AIS than just reading the Bulletin—local activities, national conventions, specialty groups, round robins. Whatever your level of interest you will find like-minded people. If you can hold a pen, you can belong to a robin. Want to learn more about irises in Outer Mongolia, Upper Montclare, Lower California? Want to know what's best and newest in irises? How to arrange them? How to hybridize them? Test a new fertilizer? Find a new way to defeat the borer? Whatever you'd like to know more about, there's a cure for isolation, cabin fever, boredom, as near as your mailbox. Meet tomorrow's friends by joining an AIS Robin today.

And to join a Robin—Regional or any other division—send your application to the Robin Program Chairman: *8191 Franz Valley Rd., Calistoga, Calif. 94515.*

Iris Smith, Hitchcock, Okla., (who heads our Young Irisarians division for AIS Juniors) is also the Robin Program's liaison chairman for Robin-member activities at national conventions. Her job is to assist the host Region to set up a registration desk for robin members so they may more easily meet their pen pals. The RP itself does not sponsor convention Robin get-togethers; this is a function of the Region and its Regional Robin "Rep" and Robin Directors, but the RP will do all it can to help make such activities a success, with Iris Smith acting as our expert (through 13 years experience!) consultant.

Expanding Operations

Business is really booming in the TB and International Robins. In Edmond, Okla., the Ralls sisters, Leah and Jean, are adding some real pep to both divisions. Leah has assumed general chairmanship of the TB robins to coordinate divisions and prepare for heavily increased participation. She is assisted by Edith Cronin and Elsie Everson and a topflight team of robin directors. Heart attacks have temporarily curtailed iris activities for both Betty Rowe and Dagmar Fondoble. Thankfully both are well on the mend, although they've both had to take leaves of absence from their TB robin division duties. Both Dagmar and Betty have our very hearty thanks for many years of service to AIS in the Robin Program.

Although Mickey Kirby of Norfolk, Va., has retired from her division job, we're delighted that she's still directing several robins—another "gal" who's been one of the chief RP assistants since the beginning of the Program.

Jean Ralls has joined Mill Holt as a division director for International robins, while out in Australia Dr. Gordon Loveridge has accepted the job of chairman for overseas membership applications. The future for the IRs (as we dub them in RP in-talk) is so big that reorganization work with this division is still under way. To help prepare for it, Herby Graves of Friend, Kansas, is taking a survey of all international robins which we hope will result in quicker placement of both north American and overseas applicants.

AIS international robins are general interest robins, but recently we've organized some special TB and hybridizing flights. Nearly all the special iris robin divisions also have IRs administered by the iris society sponsoring the particular kind of iris involved (such as medians, spurias, arils, Japanese). Incidentally, all members of these robins write in English—a USA member doesn't need a foreign language to participate! Fluency in English is a requisite for people living in foreign countries, and if you live abroad you do **not** need to be an AIS member to participate. All members of the British, South African, Australian and New Zealand Iris Societies are very welcome, as are English-writing members of the German, Japanese, Italian and other foreign iris societies. We hope to extend the hand of encouragement in iris interest around the world and all who are interested are invited to write for more information to the AIS Robin Program Chairman.

Flight Lines Surveyor

We've recently launched our own Surveyor—Mrs. George (Roberta) Torrey, Wichita, Kansas, has been purloined away from Region 18 Robins and Wichita '71 Convention chores to survey the Flight Lines reporting system and to help arrange for a more easily operated one. Her efforts to date have proven positively brilliant—she's a shining star on the RP horizon and we begrudge her Region every instant of the time she'll spend beautifying her garden and performing other assignments for the up-coming national convention!

Items of Interest

The Iris Arrangers robins may blossom into a division all its own if the enthusiasm of its new director and the applicants is any indication. Mrs. Merrill (Mildred) Johnson of Salt Lake City has an impressive list of accomplishments in gardening, flower arranging and crafts, and she fairly

sparkles with creative imagination and a real delight with this project. To join one of these robins, send your application to the RP chairman right away.

Aril-arilbred robin applications are coming in so thick and fast that Lee Kohler has been sweet-talked into accepting a division chairmanship. He's looking for more robin directors. Please volunteer if you can help!

Walter Welch, the Dean of Dwarfs, has retired as chairman for the AIS dwarf robins. In this field Walter has no peer and we regret his loss to the Robin Program. Our AIS MDB robins (like our Aril-arilbred and Louisiana iris ones) are primarily designed to acquaint beginners with these irises and to encourage their interest. We have three MDB robns flying at present with vacancies for new applicants.

There are several vacancies in the new Louisiana iris robin. These are magnificent garden irises, and you're missing great joys if you're by-passing them by thinking they're swamp irises. Judges especially should find a robin of help in becoming better acquainted with them because they're going to boom in popularity.

SPRING IN YOUR MIND'S EYE

Memories of superlative bloom in California last year linger on. Leda Christlieb, a fellow robin editor in Severy, Kansas (she does the Region 18 Robin's Roost, taking over from Roberta Torrey), comments on her trip to the convention. "I was impressed by one of Collie Terrell's greenish seedlings from CARVED JADE. CLAREMONT CLASSIC was a gorgeous BLUE SAPPHIRE-blue with show type stalks, 3 blooms open, as was WESTERN HOST. A crowd was gathered around Luihn's DUSKY DANCER, tall, dark and handsome with 3 open blooms. At Cal Boswell's I photographed the species pumila CRETICA blooming, FRENCHI, a blue-eyed grass (*sisyrinchium bellum*) and an African irid, morea. The Claremont gardens were visited morning and evening. Two I liked best were blacks by Luihn, DUSKY DANCER and ROYAL HERITAGE, a '68 introduction, 4 buds and blooms per stalk, 3 blooms open a black-purple self. TAMBOURINE (Babson) yellow metallic maroon, 5 buds and blooms, falls edged brown, blue blaze, two blooms open; POMO CHIEF (Knopf) an odd pale ecru with blue-violet flush and lines on the falls; FANFARE ORCHID (Jones) a nice RIPPLING WATERS type, 7 buds and blooms and 6 bloomstalks on a 2-year plant; BROWNIE SCOUT (Gaulter) border bearded, open standards but beautiful color with thick orange beard; falls edged deeper brown, 3 bloomstalks, 4 buds and blooms; PINK FRINGE (Rudolph) many branches, lovely form, medium sized blooms; a pink-pink, rose colored beard and lace; AZURE APOGEE (Durrance) 4 open blooms on each of 2 bloomstalks."

Tom Ford describes the medians in his Silver Spring, Md., garden. "The SDB that got the most attention was ORANGE CAPER; everyone was mad for it. LITTLE NANETTE was next for attention-getting; I was disappointed since it was a yellow self with a hardly discernible white spot below the yellow beard, not white-falled with yellow border as described. It grew fairly tall, about the 15" upper limit. Flower form is perfection, good branching and bud count. FRISKY is a dark, velvety fall with wide, bright yellow border matching the standards; 15", 2 bloomstalks on a 1-year plant, 5 increases. It was interesting to see the yellow (or buff or

chartreuse) SDBs with blue beards growing near each other for comparison. I liked the bright blue beard of GRACE NOTE best, though form was narrow and substance not as good as BLUEBERRY MUFFINS. The latter has more muted coloring, but on all other counts was better. EASTER HOLIDAY appeals to me for the bright color, if only it had the beard of GRACE NOTE. I'd really like to see GRACE NOTE'S blue beard on ORANGE CAPER; so I made crosses for that, even realizing that Bee Warburton said she has row upon row of blue-bearded yellows! DEAR LOVE was one beautiful thing this year that'll never be out of this garden; such perfect, icy blue, superbly shaped blossoms. The texture veining and ruffling makes it second to none in that line; increase is phenomenal. NYLON LOVLINESS has the most beautiful chartreuse pattern over its pale yellow falls; the pattern seems to be etched with gold sparkle on the surface. Height was ideal, branching and bud count made it bloom from early to very late—the TBs had started to bloom when the last flowers were opening. DEEP LAVENDER was a pleasant surprise, very contrasty stripes on light lavender falls, a dwarf STRIPED BUTTERFLY. PLICKADEE was the best plic SDB; maybe can be faulted on shape but no one could say it doesn't bloom like crazy. I liked CIRCLETTE a little better. Saw SAIL AWAY in Rena Kizziar's garden, a fine new smooth blue. Everyone was trampling everything else to see it; it's that good. A beautiful clump of FIRST LILAC was showing to perfection. Rena has so many good new things, but FIRST LILAC was upstaging most of them."

MayBelle Wright has some suggestions for newer irisarians. "If you are going to plant a new iris bed and don't want to spend too much, I think the following would be in my want list: CELESTIAL SNOW, ELEANOR'S PRIDE, LYNN HALL, ROSY VEIL, DOTTED SWISS, PINNACLE, SABLE NIGHT, VIOLET HARMONY, ALLEGIANCE, OLYMPIC TORCH, AMETHYST FLAME and ARCTIC FLAME. I would rather have less of these not-too-old varieties than more of the real oldies. The improvements in the last 5 years have been amazing."

Eleanor Westmeyer reports on some beautiful new Japanese irises. "IMMACULATE GLITTER (Payne), a dark red double with tiny white edging, really stands out in the garden. POPULAR ACCLAIM (Payne) was the most striking two-toned near amoena, white falls and dark purple standards. LOVE GODDESS (Payne) has a greenish cast that makes it a honey. BLUE NOCTURNE thrills me with its rich, deep blue every time. MISUKO GURMA bloomed for the first time for me and is now a favorite, a red and white blend that is hard to describe, different and lovely. KARAHASHI is a magnificent big red flower but every blossom was sunburned; it was hard to open up. I noted, too, that one of its offspring, LEAVE ME SIGHING, also tends to sunburn. I wonder if this weakness is hereditary."

Victor Scholz in Los Angeles noted "GREAT MOGUL continued to bloom and bloom. Some comment has been made about it being a re-bloomer, but my experience here in L.A. is merely an extended blooming period. It kept blooming even though transplanted. I will try some breeding with it to see if this tendency is transmitted. We could use more of this extended bloom."

The Hybridizing Game

More and more irisarians each year join the ranks of those who lend their creative talents to working for ever better irises in all classes and colors. Mrs. B. L. Stamps in Scottsville, Ky., is one. "I read everything I can find on hybridizing and keep a record of all irises as to the ones which are good pollen parents and good seed parents. I also read everything I can find about improving the branching and texture; and after I have read everything the best hybridizers have said, I go out in my garden and pollinize with abandon. I sort of throw away the book and mix colors and blends and speckles and splashes. But I'm having such a good time. I wish all such could become interested in hybridizing. It opens up a new world of interest."

C. A. Cromwell in Oklahoma City says "I can't associate a flower with nine-tenths of the names I hear. If a seedling doesn't have something going for it other than the garden of its origin, it shouldn't be introduced. Personality is needed. You should be able to walk up to it anywhere and say, 'Isn't that ole Chickenman?' In this vein, there are many new ones which fall in this category: MARSHMALLOW, CRAFTSMAN, CLOUD CAPERS, NINEVAH and ESTHER THE QUEEN. Look for LAUNCHING PAD, CONFECTION and CAPETOWN, just 3 of many good new irises around. NINEVAH and SUPERGLOW will hunt you up. Iridescent is a good term for them."

Z. G. (Ben) Benson of Wichita Falls describes his successful pollen storage method. "I pull the bud the night before it opens and bring it inside to open. In that way I am pretty certain that it will not get contaminated by bug or bee. After the pollen fluffs up, I pick the anther and place it on a saucer or some flat container to dry for at least two days, or three won't hurt. I do this drying in the shade, a north window-sill is just right. In the meantime, from the corner drug store get some #00 capsules, about 10¢ a dozen. Place one stamen in each capsule, then put the capsules in a metal box that your Kodak films come in, screw down the top tightly, and place it in the freezer for the following spring. I use "wet-pruf" adhesive tape to stick around the bottom of the capsule, and with a laundry pen number each one and make a list on a separate piece of paper wrapped around the container to list the different pollens which are to be stored in the container. To use the pollen, take out only one capsule at a time, use what cross it will do, and then throw it away. With a fine brush you can get some extra pollen for another cross or two, but be sure to wash and dry the brush before using a different pollen. The only pod that I made from LITTLE DUDE pollen last year was with some saved from 1965 and I planted daylily seed last fall that I made from 3-year old pollen saved and treated in this manner."

Wyannaline Stinson, Dallas, Texas, is our new Median division robin editor, both for Flight Lines and *The Medianite*. She reports that she dries her seeds, puts them in the freezer for 3 weeks planted in plastic pots covered with Glad Wrap.

Our faithful reporter Edna Gillen in La Junta, Colo., says she learns a lot from Clyde Cochran, her neighbor. "He gathers the seed from his crosses just like any garden seed when it ripens, dries it and packages it until October 31st. He then makes a good seed bed, plants seeds one inch

deep, 3" apart. The whole bed is covered with a 3" straw or hay mulch and the bed kept damp until freezing weather. If there is danger of the mulch being blown off, anchor it down with binder twine criss-crossed over the seedling bed. Around April 1st to 15th, when the seedlings are well started, dig them and set out 12" apart in rows 3 feet apart. With good care many will bloom the second year."

Who can possibly escape being excited to see the seedlings he's created as they bloom for the first time? The robins are full of reports which detail what results from any two parents. Mrs. George Nelson in Arlington, Calif., reported a few of hers. "Seedlings involving APROPOS or CLAUDIA RENE were most interesting. DAWN CREST X APROPOS gave one green, greener than JEALOUSY, one colored like MILESTONE and a yellow. All were ruffled, with good substance and a certain charm. APROPOS X MARIE PHILLIPS gave one very similar to APROPOS but more blue."

Leda Christlieb has registered a seedling which won an exhibition certificate, MYOWN JOY, and two similar seedlings, JUNGLE BIT and POGO DOLL. "These show their aril parentage mostly in width of parts, form, coloring and improved substance. Taller than the dwarf parents, they don't have signals but are vigorous and floriferous. My goal is to get an iris with some aril look and enough stamina to stand our Kansas weather."

Bee Warburton made an exciting discovery among her current crop of seedlings. "In the mellita lines, one finally segregated out a very tiny pink which blooms in TB season. It isn't over 6" high but, wouldn't you know, is a very slow grower also. I'm not sure it will even bloom oftener than every other year. Sad, isn't it?"

Helen Stevens is another master breeder of little irises who reports on a really exciting find this past spring. "66-11 ((HAPPY BIRTHDAY X PARADISE PINK) x (HAPPY BIRTHDAY x *aphylla polonica*)) X TOMORROW. TOMORROW is my white *aphylla* seedling, so 66-11 is an F2 from *aphylla* breeding. It is a light pink with lavender beard. The pink is a smooth color; it has upright standards and flaring falls and is 11" tall. This is an exciting iris to me for two reasons. First, because, if the cross is true, it shows that the white *aphylla* TOMORROW can produce pink in the first generation. Second, it is a dwarf blooming in TB season. It opened its first bloom towards the last part of TB season.

One can't help but delight in the color descriptions of these astonishing little irises. Earl Roberts notes the best among his seedlings in his Indianapolis garden. "Starting with the small dwarfs I numbered 7 pumilas, 3 of them Russian pumilas raised from seed, all in tones of pink, the pinkest I have ever seen in pumilas, and all with rosy maroon spots on the falls with pink edges. The other 4 were WHITE MITE X BROWNETTE crosses. I numbered 5 lilliputs from a cross of a blue *amoena* from pink lines X BLUEBERRY MUFFINS. The reciprocal cross was the same. These gave some nice pale blues with chartreuse and light blue beards, a light green bitone with blue beard, a lemon with chartreuse spot and blue beard. Another with a blue beard came from Goett 5D1 X LAURIN (*I. barthii*), light green self, very bright blue beard, 4 bloomstalks on a 1-year plant." For those interested in breeding a red standard dwarf Earl suggests using CAPTAIN GALLANT and VINDOBONA.

Matters of Culture

Leda Christlieb learned some cultural techniques in California. "We learned that 100 Japanese irises can be grown in a 30" square by using 3" pots. They must be repotted each year, grown in acid soil and we should start fertilizing with commercial fertilizer (10-10-10) when leaves are 6" tall. They're gross feeders, so fertilize until leaves turn dark blue-green. Dig a shallow pit, line with vinyl, keep an inch or two of water in it during spring and summer. When leaves turn yellow in fall water is withheld. Keep dry over winter. Stop fertilizing when buds leave the leaves or the blooms will be soft. Mulch with leaves during winter. Plants like full sun; blooms like shade."

Frank Foley in Davenport, Ia., suggests, "When you receive Japanese irises (which should be in August) leave them in the plastic bags. Be sure there is enough peat moss; if not, put them in a larger bag, add more peat moss, keep on the shady side of the house until you can see *new* root growth over an inch long. Have a bed moist to receive new plants and set them in and really soak the bed. Flood it if you can; be sure to keep the plants moist unless the rains give you a hand. There should be a showing of growth and they should have a good layer of mulch in the colder states during the first year. In the winter in colder states adequate drainage should be provided because only in spring through bloom season do they require lots of moisture."

Handling Garden Problems

Although written in Japanese iris rebins about problems with those plants, a number of suggestions are pertinent to most all situations. Bob Swearngen talks about nematodes. "There are few traces of them this far north. Plants from one source surely had them. I soaked them in 1:200 solution of formaldehyde at 125 degrees F. This truly embalmed them. The critters folded their pinkies and quit! Thrips are not only common but much more prevalent than commonly thought. The narrow dried edge of standards and falls that may look like sunburn is more often than otherwise thrip damage. Perhaps a prebloom spray of chlordane might help to prevent this damage."

Eleanor Westmeyer says that she's had just about everything in the way of diseases and pests in her Stamford, Conn., garden in the past 10 years. "Iris borers are the worst problem. They are hard to detect in Japanese irises, so I protect the plants by drenching the crown of each plant with chlordane early in spring. This also controls thrips, red spiders, etc. The iris snout beetle is a real pest some seasons. It appears just as Japanese irises begin to bloom. They puncture the loveliest blossoms. The beetle is a small black one with a long black snout. The larva sometimes ruins seed pods. The verbena bud moth also causes the loss of some seeds. I need to extend my spraying period to contact them. I have been fortunate in that no one disease has been a serious threat. Have lost some plants to a black crown rot similar to that which affects delphiniums and have had a few plants that yellowed, but those have been isolated cases and have not spread."

Cecil Wadleigh in Lanham, Md., discusses soft rot. "In bacterial soft rot of fruits, potatoes and carrots, we know that the afflicting bacteria emit enzymes that hydrolize the pectin in the cell walls of the host tissue, paving

the way for further entrance of the bacteria. This attack of the bacteria is eased by a break in the protective skin of the fruit or potato. We know that cultural conditions that induce relatively high levels of carbohydrates in the storage organs help their resistance to bacterial attack. Thus, the reserve of sugars and starches in the tissues aids the development of tough cell walls that offer more physical resistance to bacterial entry. Tissues relatively high in soluble nitrogen constituents are usually more susceptible to such bacterial attacks."

Bob Swearengen suggests use of Dowpan for several problems. "All of my garden that is not planted is getting a good shot of Dowpan. It kills Johnson, quack, crab grasses and foxtail as well as most others. And it also kills irises. You can plant within five months. As soon as the ground can be worked in spring, I prepare the bed for spring planting. This is treated with Dowfume MC2, a gas job, (really methyl bromide) and this kills all of the above plus nematodes and most insect pests. You can safely plant in less than 2 weeks if you follow the directions. It is more expensive than Dowpan, but you can plant much sooner. One pound treats 100 square feet and costs 64¢ here. It will also treat 4 bales of straw to kill all of the seed, weed and other, and all insects and eggs that may be present. It will not kill rust spore."

Bee Warburton notes that Simazine is a weed suppressor. "It kills them on germinating, but must be applied to clean, cultivated land and watered in. Atrozone is a stronger chemical which can be used in sandy soil, but not in retentive soil."

COLLECTOR'S ITEMS

Jean Witt describes what she grows. "Among the bearded species, I have just the ones that are useful in MTB breeding: *I. imbricata*, an odd greenish yellow, not exactly a garden ornament, and a dwarf seedling that I raised from (DOGROSE x *imbricata*) X *mellita*, which is about 8" high with tiny flowers in the same yellow. If I had only used some other parent than DOGROSE this might have merit. *I. albertii* also seems to bloom in the intermediate season. It is an ugly dull purple-blue and I don't see much future in it as a parent of anything. *I. illyrica* on the other hand is a very good blue with ruffled, though longish flowers, and much better shape than *I. cengialtii*. One of my primary interests is to develop a strain of hybrids between the Californicae species and those of the Sibericae section. I have quite a range of Siberian species and hybrids and have been collecting good clones of Californias to use with them, mostly *I. tenax*, *I. douglasiana* and *I. innominata*, most of which I haven't really had a chance to try out yet. The object is to breed a hardier plant for colder climates where they would like to grow the Californians but can't. Two lots of imports which seem to have made it through the winter are beardless things collected by a USDA expedition to Korea, which includes *I. rossii* and a set of diploids from Czechoslovakia including a *pallida* with red edges like those of *I. rubromarginata*, a trait I hope I will be able to work into MTB irises.

"A buried bathtub full of soil plus peatmoss serves as a bed for Louisiana irises, which are really going to bloom this year. This seems to be a better method than the previous cultural tries here. We have a problem keeping ordinary borders as there is not enough moisture for water-loving types."

Bill Gunther in Del Mar, Calif., describes garden climate which illustrates why California, or its southern portion, is the most densely populated spot in the nation. "I've just checked over my garden (July 19th) to see what species are in bloom today. Half a dozen are in flower: *ensata*, *laevigata*, *douglasiana*, *tectorum kaempferi* and *dichotoma*. *Iris tridentata* also was in bloom until a chuckawalla (a big horned lizard that looks like an iguana) ate up all the blossoms. The reason many of my species (and hybrids too) are in bloom during times when they shouldn't be is that I live very near the ocean, which stabilizes the temperature here so much that some of the irises don't know what season it is. So they bloom any old time. The special situation pertains, apparently, right close to the coast."

Emily Eugene Nelson, avid new iris species collector in Saratoga, Calif., reports, "In Ben Hager's garden I saw a Russian *imbricata* with which I fell in love; a median, beautiful branching, nicely closed standards and ruffled falls; perfect medium size, too, creamy white in color and nice substance."

Bonnie Bowers in Roseville, Calif., has some exciting news to report on her work with true aril species. "Last year Johnnye Rich gave me some oncocyclus pollen to try on my regelias and dwarfs; I had two pods embryo cultured. This was another 'first attempt.' My test tube babies are now in their own pots and seem to be thriving outdoors. The garden of Rex and Johnnye Rich has been the target of much of my camera 'shooting' (they have a marvelous collection of aril species and hybrids). Also went to Loomis where Clay Osborne has a very fine aril collection. I have slides of *I. urmiensis*, *I. lycotis*, some of Mary and Frank Bushey's and Leo Clark's seedlings. Some most interesting things of all were blooming at the University of California Davis campus (a new botanical garden is here) which Johnnye Rich had embryo cultured for them just last year from seed sent from Russia. *I. iberica*, *I. elegantissima* and *I. paradoxa* all put on quite a show and I only wish they had lasted a bit longer for the AIS convention."

Another of our right hand people in the robin reporting business is Edith Cleaves, who grows an amazing number of exotic irises in her San Jose, Calif., garden. "Right now, in July, and a bit early, *I. dichotoma* is in bloom. Of my 5 plants, 4 are seedlings and one a volunteer that I brought along when I moved here in 1964. This finally bloomed 2 years later in a bed of dwarfs I had brought along. It is not too tall, with very small buds on it. Two of the seedlings are nearly 40" tall and covered with a much deeper and richer colored flower, purple, veined, and there is such a lot of bloom. Opening at 4 PM, they do not last until the next morning, but the next afternoon another bouquet is atop the stem. This is the only plant that I know of that gives you an iris in August, except some dwarfs and rebloomers. *I. dichotoma* is easy to grow, likes the sun, but also some water to do best, about every two weeks and then soak it thoroughly. Have you seen *I. hyacinthiana*? I had a lovely clump, loaded with at least 30 blooms every day, during bloom season. This plant is similar in growth only to *stylosa (unguicularis)* while the leaves remain short until after flowering, then grow quite long. The root of this plant goes very deep. It is an *ensata* and every blossom produces a bee pod."

Ila Nunn, chairman of the Spuria Robins Division in Houston, has a

beautiful garden. "Louisianas and spurias have been my main interest, but in 1956 I added bearded types too. They are not all in bloom every year because of the humid climate. I can grow the Louisianas very well in normal years if lots of rainfall arrives; they like the gumbo soil on one side of our property where there is rather poor dainage, but they sometimes get too dry. I had beautiful bloom last spring on NADA, the only evansia I have. I grow *I. pseudacorus* around a pond, and *virginicas* and species Louisianas. I have *I. ochroleuca* and *I. halophila*, some small ensatas, lots of *unguicularis*, including the narrow-leaved Clark blue (*speciosa*, I guess). I have had no luck with *I. missouriensis* and a few West Coast native species, but can grow some of the arils."

Grace Carter of Hood River, Ore., tells of a project her talented daughter, Lynne, is embarked on. "She wrote her thesis at Reed College on *Iris tenax* and *I. chrysophylla* and their hybrids. She was planning to write her doctoral paper on iris also, but due to the difficulty in doing the research and field work in the time she has, she decided to write it on something else. However, she is still interested in the introgression of the native irises so she has laid out a program of breeding in which I will do the hybridizing and grow the seedlings and she will do the chromatography and the brain work." And we wish this project well!

Leona Mahood describes another interesting project. "My sister collects stamps and has a beautiful album filled with iris stamps. You might be surprised at how many there are, 25 or more, each on its own page with information concerning both the stamp and the iris depicted."

Audrey Bloodworth in Georgetown, Ind., writes, "In addition to gardening and a job, I take a ceramics course. I am thrilled with this work and have completed 7 plates, each with a different iris and a gold band around the edge. I have also made two vases with hand painted iris designs."

Donald Patton describes the popularity of the little irises in England where American varieties are receiving great honors. "In the south of England the standard dwarf beardededs have an advantage of about ten days over this area (Cheshire), consequently our enthusiasts down there were able to show a number of medians at a small show we ran on May 2 and 3 in conjunction with the Royal Horticultural Society rhododendron show. This 'dwarf and species' show is now a regular thing in London at the beginning of May, and this year there was a very good and varied display. We had four classes: MDBs in pans, MDBs in vases (three stems in small jars), SDBs in pans and SDBs in vases. Between the north and south of England we are able to show the public a wide range of smaller irises and this is gradually making them better known. Those who came to admire the rhododendrons (which were marvelous) stayed to admire the irises and there were many enquiries made . . . CLAIRE (A. Brown) and ARRANGEMENT (Goett) were selected for trial at Wisley."

Discussing shows here in America, Allen Harper in Kansas City points out something about shows where the same exhibitors always seem to take home the top awards. "There are two ways to handle this. One is to schedule some novice classes, open only to those who have not won blue ribbons at prior shows, and the other is to have varietal classes, specifying which are not too old, but generally grown in the area. These classes give everyone a chance to win."



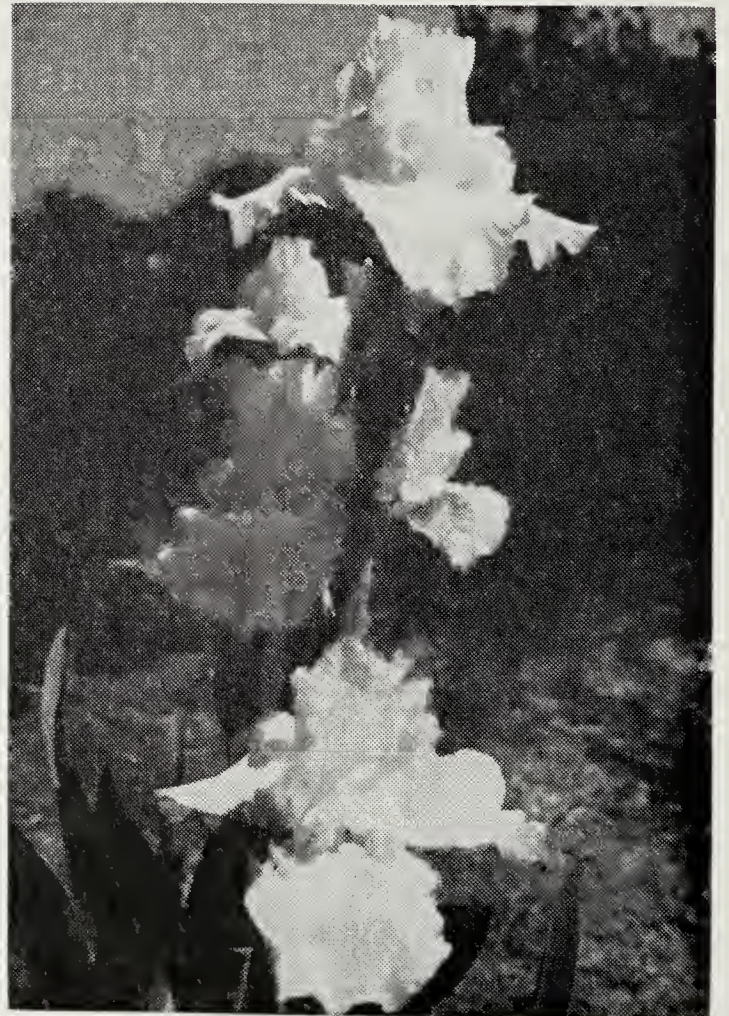
LIGHTS OF PARIS
Siberian HM '68
Rich '67



HARMONY HOUSE
(Marsh '65)



MINNESOTA GLITTERS
(Bakke-Messer '67)



CHARM SCHOOL
(Palmer '64)

(Photos by Keppel)

Display Gardens For Median Irises

Bennett C. Jones

Much of the steadily increasing interest in median irises can be attributed to the successful system of display gardens for them. In most instances, these gardens are private ones whose owners have agreed to acquire, care for and display the plants in the best possible manner. Some are well-tended gardens where median irises are grown to exhibit their value in the border. In others, they may be grown in beds or rows, which is how it is done in two of the gardens in the Northwest.

Located in the fir-studded hills of Kirkland, Washington, just outside of Seattle, the garden of Alta and Rex Brown is the center of median iris activity in Region 13. Here may be seen what is possibly the most extensive collection of them in the country, along with the results of a program of hybridizing equally as extensive.

Each year during the flowering season enthusiasts are invited to a weekend of "come and see" or "show and tell." After a morning of studying the new guest irises and browsing the seedlings, "specialists" present their favorite type of the median group, noting the improvements and suggesting what needs yet to be done. There is always a session on judging again with "specialists" in charge. A sale of plants—"bring from your own garden"—pays the expenses of the gathering. Amounts above expenses have, to date, been donated to the American Iris Society for research.

In my garden, here in Portland, median guests are grown in beds or rows, principally because I can grow more of them in a smaller space and take better care of them in the bargain. When they begin to flower, judges in the area are invited to see them. They always come, most of them more than once to see succession of bloom. Here, too, discussions are held on progress and on how to judge the four classes.

With between twenty and thirty of these display gardens throughout the country, there is no better way for a hybridizer to have his best efforts seen and judged.

Depending on whether you want to see them before you add new varieties to your collection or just to see what is being done, there is no better place to go. Judges, who are required to keep abreast of all types of irises, will find this to be perhaps the most convenient and interesting way to learn about and remain current with the medians.

Your host will welcome you; there is something for everyone, and we hope you will take advantage of the garden nearest you this coming spring.

THE BROOKLYN BOTANIC GARDEN

Harriet Segesemann

The Brooklyn Botanic Garden is a beautiful garden in the heart of Brooklyn, New York, and is adjacent to the Brooklyn Museum, the Brooklyn Public Library and the great Prospect Park.

There is a small iris garden containing 100 irises, some older varieties, and some new ones added each year. It does not have the very old ones, as it cannot tell people where to buy them. A few species are found in the Herb Garden; and there are Japanese irises around the small lake in the Japanese Garden and elsewhere along the brook. In the fall one finds

remontants in the Children's Garden and in the Fragrance Garden for the blind. Old FLORENTINA is found in the Shakespeare Garden.

The garden has extensive collections of lilacs, azaleas and rhododendrons at iris time. Earlier there is a daffodil hill covered with many varieties of daffodils, and a fine collection of magnolias near by, as well as a delightful wild flower garden of about an acre. There are long rows of cherry trees to blossom, and a very large rose garden with roses all summer and fall. The garden is a delightful place to spend some time walking or sitting at any season of the year.



LIGHT FANTASTIC O. Brown
(Photo by Kuesel)



FIRST SNOW
(Sexton '66)

NEW YORK BOTANICAL GARDEN

Harriet Segessemann

It is a delight to visit the New York Botanical Garden, located in the upper part of the Borough of the Bronx, at any season of the year. It has two hundred forty acres of woodland, as well as gardens and extensive conservatories. There are drives through the park, with a snack bar in the Old Snuff Mill, and many walks through the woodland and flower gardens. There always is something to see. Its greenhouses contain all kinds of tropical trees, ferns and tropical plants; and there always are at every season such displays as lilies at Easter time, and the chrysanthemums, inside and outside in the gardens. At iris time there are many shrubs and other plants to see, as well as the historical iris collection and the new ones that are being planted for the convention of 1970.

As this garden is where the American Iris Society had its first meeting, it is of double interest to the members.

GOLDEN ANNIVERSARY CONVENTION — NEW YORK — 1970

From the Editor's Desk

The Connecticut Experiment Station, New Haven, Conn., has a brochure, *Iris Borer and its Control*. It is the best information we have seen on the subject.

As usual for the past year, we have too much good material. Even some copy already set in type was set aside for a later issue. We based our judgment on timeliness.

The April issue will feature brown irises.

The Tennessee Valley Iris Society gave one hundred rhizomes to the National Education Association . . . The Memphis Area Iris Society raised \$60.00 for the weed control project . . . There is a Popularity Poll display garden in Nashville . . . The Blue Grass Iris Society has a display bed with one hundred varieties in the Lexington cemetery . . . Several new local clubs have been formed in Region 7 . . . The Richmond, Va., club has been reactivated . . . Reports are that Carol Ramsey did an outstanding job at the Judges Training school in Lewisburg . . . The Southern West Virginia Chapter maintains an iris display garden at Sunrise. They have about 350 varieties on display, and at least one of the four beds is remade each year. They attempt to plant with varieties not grown in nearby members' gardens. The display attracts considerable interest; they had over 1500 visitors one afternoon . . .

The Oklahoma State University Extension Service and the Oklahoma City Park Department presented a program on iris care and culture in October. Perry Parrish, Marvin Fletcher and Bill Jones were the guest panel . . . We are greatly impressed with the culture and care in record keeping of the Oklahoma City Regional Test Garden. Perry Shelley does a magnificent job. This one and the one which Robert Minnick operates in Kansas City are examples of superb regional Test Gardens . . . The Twin City Iris Society has planted a Siberian iris display garden at the University of Minnesota Landscape Arboretum. It is dedicated "In memory of Christine McCaslin Brown and all grandmothers who have passed on a love and knowledge of ornamentals to the children at their feet." . . . The Department of Plant Pathology of the University of Minnesota is making an intensive study of plant-parasitic nematodes . . .

We have not received the complete list of awards at Hamburg, but we are informed that Rex Brown's LAKE WASHINGTON and SEAFAIR BALLET were first and second.

We have received two checks to be applied to the Scientific Fund, each for \$100.00. One is from the Northwest Median Iris Society, and the other is from the Southern California Iris Society. We know we repeat, but we have confidence that many of the answers to problems of the present horticultural world are going to come from the laboratories of science.

Region 13 has forwarded to the treasurer \$25.00 to be applied to the Research Fund. We express the heartfelt thanks of AIS.

Mary Voss and her committee have the gratitude of the Board for the splendid reception and dinner at the Fall Board meeting in Chicago.

The *Bulletin* had to go to press while the editor was in the hospital, therefore, any errors will be traceable to that.

MEDIAN IRIS SOCIETY SYMPOSIUM

Standard Dwarf Bearded

1. BLUEBERRY MUFFINS
(Warburton)
2. BLUE DENIM (Warburton)
3. BRASSIE (Warburton)
4. CHERRY GARDEN (Jones)
5. SKY BABY (A. Brown)
6. ZING (M. Brizendine)
7. CIRCLETTE (Goett)
GREEN SPOT (P. Cook)
LILLI-WHITE (Welch)
10. EASTER HOLIDAY
(Durrance)

Border Bearded

1. TULARE (Hamblen)
2. FRENCHI (Jones)
3. JUNGLE SHADOWS
(Sass-Graham)
4. TIMMIE TOO (Wolff)
5. BLUE MILLER (T. Brown)
6. DEBBIE ANN (Wolff)
7. ELLEN Q. (Peck)
8. MISS RUFFLES (M. Wright)
9. LITTLE MARK (Quadros)
10. BOTANY BAY (Jones)

Intermediate Bearded

1. CUTIE (Schreiners)
2. LIME RIPPLES (A. Brown)
3. MOONCHILD (Tom Craig)
4. CLOUD FLUFF (Greenlee)
5. LILLIPINKPUT (Douglas)
6. BARBI (Randolph)
7. KISS ME KATE (P. Cook)
8. FIRST LILAC (Greenlee)
9. DRUMMER BOY (Schreiners)
10. OHIO DEB (Dangler)

Miniature Tall Bearded

1. PEWEE (Williamson)
2. DAINTY DANCER
(A. Brown)
3. DESERT QUAIL (Roberts)
4. PAINTED ROSE (Roberts)
5. TOM TIT (Bliss)
6. ICE FAIRY (Witt)
7. WIDGET (Williamson)
8. DAYSTAR (Williamson)
9. MOCKINGBIRD (Roberts)
10. PARAKEET (Roberts)

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ANOTHER BREAKTHROUGH

H. H. Henkelman

In one of our seedling patches flowering during the '66 season, there appeared a seedling from LINDEN LADY, our own registration, X ORANGE PARADE parentage, which is doing much more than is usually looked for in a TB. At proper planting time, a couple of twin plants and a single were placed in two different gardens locally and they proved their ability to repeat bloom and also develop increases after going to bloomstalk. Immediately after the earliest bloom from a clump, two of the suitably sized divisions of those that hadn't flowered with the first, and which were without sign of a side-shoot, were transplanted in two other neighboring gardens. Within five weeks both had flowered, and shortly thereafter increases were produced. Disturbance from the transplanting seemed to cause very little handicap, as was evidenced also by their sizeable stalks. A clump of this origination imitates the pattern of a spring-blooming TB and then repeats to extend the season into the second summer month.

The plant has a lot of vigor, but its orange self flowers are not broad and full enough as compared with present-day standards, and I do not recommend it to be a part of any upgraded garden. Hybridizing results to date are not known except that it is fertile both ways. It may not be worth a "hill of beans" as a parent. However, in my day-dreams connected with the good fun of growing irises, I like to see this as (maybe) contributing wonders from intermixing with other varieties in our pint-sized program.

Because this iris was found blooming until after July 4, I think it technically can be classed as a rebloomer, but it will not bloom in the fall.

Now and then we see an extra late stalk of a once-blooming TB, and from special nursing I've gotten one increase following a bloomstalk situation. Why no stronger tendencies? Remontant roses for years, and now some of the newer hemerocallis are repeaters. Won't it be something when someone comes up with a TB, good in all respects, capable of stretching the spring iris-time season and promising not to quit if sometime a plant might all bloom out.

Effects of Mulches on Bearded Irises

A. E. Einert 1/ and C. O. Box

B. Y. Morrison Iris Research Project

Horticulture Department

Mississippi Agricultural Experiment Station

State College, Mississippi

Bearded irises are popular perennials in most home gardens. They produce graceful spring flowers in a wide range of color with few basic cultural requirements.

Most recommendations for iris culture in the home garden are the result of observation by hobbyists without benefit of data from controlled experiments. Recognizing this situation, members of Region 24 (Mississippi-

1/ Graduate Assistant, Department of Horticulture

Alabama) of the American Iris Society established the B. Y. Morrison Iris Research Fund in 1965 to support cultural studies of irises at the Mississippi Agricultural Experiment Station. Matching contributions were made by the national society. Contributions of rhizomes largely by Schreiner's Gardens, Salem, Oregon, were also made toward the research program.

Experiments under the Morrison project were established to investigate areas of culture as requested by iris growers in this area. An effort was made to obtain specific recommendations for the mid-South. Studies initiated were mulching, time of planting and rhizome handling, fertility tests, herbicide and fungicide trials.

This report covers the mulching study which has been underway for two years. Continuous tests in 1967 and 1968 were used to evaluate mulches on newly planted and established iris beds.

Materials and Methods

Rhizomes of the variety PINNACLE were planted in November 1966. Prior to planting they were sorted according to size to assure uniformity of planting material. Sound, healthy rhizomes were set with the top surface exposed in newly prepared and fumigated beds. Methyl bromide (Dow-fume MC-2) was used as the fumigant at the rate of 2 pounds per 100 square feet.

The following mulching treatments were initiated immediately after planting: Perlite, gin trash 2/ (sterilized), fresh pine sawdust, black plastic (4 mil. polyethylene), ground corncobs (deleted second year), leaves, peat moss, black plastic covered with 2 inches of washed gravel, pine straw and an unmulched control. All mulches except plastic were approximately 2 inches deep and were maintained on a year-round basis.

After growth began each spring, all plants were sprayed weekly with a fungicide (Manzate) and an insecticide (DDT) at the rate of 1 tablespoon each per gallon of water. In September of both years, the foliage was cut back to 8 inches from the top of the rhizomes. The cut leaves and dead flower stalks were removed and burned.

Data were recorded on several factors of growth and flowering. Degree of weed control was judged by observation throughout the year. All other data were collected during the flowering season.

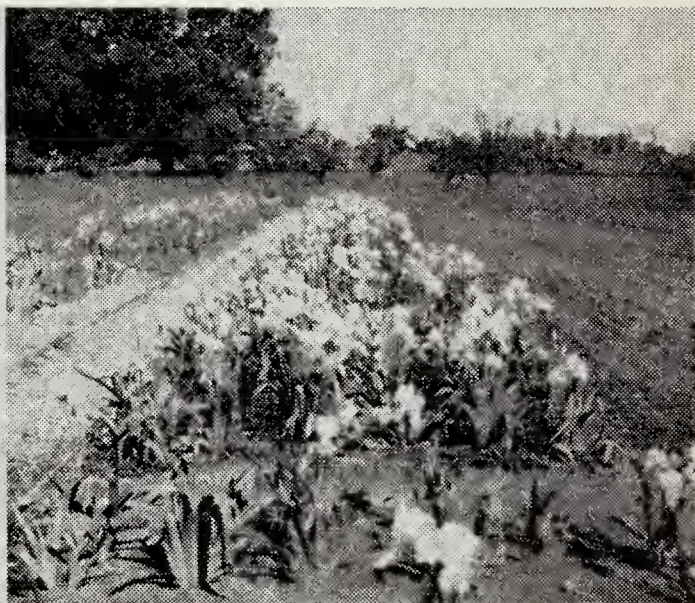
Results

The effects of mulching and of various mulching materials are shown for first-year iris plantings in Table 1 and second-year plantings in Table 2.

Bloom Date — The first year, all mulches, except corncobs, hastened the date of the first bloom over the unmulched control. Several materials accelerated blooming by as much as 9-11 days. The degree of bloom date acceleration by mulching was reduced the second year, yet all mulches, with the exception of plastic, tended to cause earlier flowering.

Flower Stalks per Plant — After the first season mulches had no effect on flower stalk number.

2/ Debris from cotton gins containing leaves, burr particles, line and other trash.



Views of the Iris Plantings (Variety PINNACLE) of the mulching Study at Full Bloom — April 1968.

Flowers per Stalk — During the second year, bloom number was increased by from 1 to 1.5 flowers per stalk by mulches of perlite and plastic with gravel as compared to unmulched plots. With the exception of gin trash, all mulches tended to increase flower number.

Plant Height — Mulching, with any of the materials tested, increased plant height over unmulched plants the first year. In the second year, however, there were no height differences caused by mulches.

Weed Control — The best continuous weed control was by plastic with gravel and plastic mulches. Growth into the plots by creeping grasses was not inhibited by the organic mulches.

Survival — Plant survival was greatest under the pine straw mulch and

the greatest losses occurred under a sawdust mulch and in the unmulched plots.

Table 1. The effects of several mulching materials on bearded irises (PINNACLE variety) growth and flowering the first year after planting.

Mulching Material	Ave. Ht. flowering stem (inches)	Flower stalks per plant	Ave. flowers per stem	Ave. number plants with no bloom	Ave. date First bloom (April - 1967)
Pine Straw	26.00 a 1/	2.00 a	5.22 a	1.8 ab	19 a
Leaves	25.00 ab	1.90 ab	4.67 a	1.0 a	16 b
Peat Moss	24.38 bc	1.88 ab	4.80 a	2.5 bcd	20 a
Perlite	23.56 cd	1.83 ab	4.61 a	3.0 bcd	16 b
Gin Trash	24.13 bc	1.82 ab	4.62 a	4.0 d	21 a
Plastic and gravel	24.63 bc	1.81 ab	4.61 a	3.0 bcd	14 b
Sawdust	22.88 d	1.63 bc	4.81 a	3.5 cd	21 a
Ground					
Corncobs	20.38 e	1.62 bc	4.64 a	7.5 f	24 c
Plastic	22.75 d	1.30 d	4.76 a	5.3 e	21 a
No Mulch	18.88 f	1.49 cd	4.64 a	7.3 f	25 c

1/ The means in any one column with the same letter are not significantly different. Different letters in any one column designates a significant difference at the 5% level of probability by Duncan's multiple range test.

Table 2. Effects of several mulching materials on several factors of growth and flowering of bearded iris (PINNACLE variety) the second year after planting.

Mulching Treatment	Ave. date First bloom (April 1968)	Flower stalks per plant	Ave. flowers per stalk	Ave plants with no blooms	Ave. number of dead plants
Pine Straw	24 ab 1/	6.5 a	5.25 ab	0	0
Leaves	24 abc	6.4 a	5.63 abc	0	2
Peat Moss	25 ab	6.0 a	5.38 ab	0	3
Perlite	25 ab	6.1 a	5.98 bc	2	3
Gin trash	22 c	6.8 a	4.95 a	0	2
Plastic & Gravel	25 ab	7.2 a	6.50 c	1	3
Sawdust	23 bc	5.2 a	5.60 abc	4	7
Plastic	26 a	6.6 a	5.55 abc	1	2
No mulch	26 a	5.8 a	4.88 a	3	4

1/ The means in any one column with the same letter are not significantly different. Different letters in any one column designates a significant difference at the 5% level of probability by Duncan's multiple range test.

Summary

Mulching of new iris plantings proved beneficial to subsequent growth and flowering. During the first year, mulches induced earlier flowering, more flower stalks per plant and taller flower stalks as compared to no mulch. They also increased plant survival.

The beneficial effects of mulching were less pronounced the second year

after planting. The bloom date was only slightly accelerated and the number of flowers per stalk only slightly increased by mulches, depending upon the material. Mulches the second year had no effect on plant height or the number of flower stalks per plant.

Light mulches such as perlite and leaves were easily removed by wind and washed by heavy rains. These materials had to be replaced each year. Sawdust, peat moss and gin trash retained excessive moisture. This excessive moisture was apparently responsible for the increased weeds and incidence of soft rot and leaf spot observed in these plots.

For continuous mulching, pine straw and black plastic covered with gravel appeared to be the best materials. In addition to promoting good growth and flowering, they possessed good weatherability, were inexpensive and readily available. Survival was best in pine straw for the continuous 2 year period. Weed control was not as good though as with plastic with gravel. Considering all factors, the black plastic with gravel is probably the best mulch.

It appears that with any mulch, a regular fungicidal spray program to control leaf spot is beneficial.



PROFILES



MRS. RALPH A. RICKER



Ethel Ricker joined The American Iris Society in July, 1932, and was appointed an accredited judge in January, 1933. She attended her first national convention in 1934.

In 1938 she was appointed Exhibition Chairman of the Society and held that office for twelve years.

In 1950 she became the RVP of the newly formed Region 21, and has attended nearly every meeting of the Region, as well as when the Region was a part of Region 9 and of Region 18.

She was the chairman of the national meeting held in Sioux City in 1950, and has a record of having missed few of the national meetings. In 1963 she was appointed an Honorary Judge, and has the enviable reputation of never having failed to send in her ballot.

Ethel Ricker is a popular judge of iris and other flower shows, and has judged often, both within Region 21 and in other Regions. As a former Exhibitions Chairman, she is keenly interested in iris shows, and has had a part in many fine iris shows in Sioux City.

She grows about five hundred tall bearded varieties of irises in her garden, and the garden now consists largely of the newer varieties. In addition, she grows a number of intermediates, borders, standard dwarfs, dwarfs, and

a few of the species, Siberians and spurias. Her garden is one of the Region 21 gardens which draws a large number of visitors each year.

Her sister, Miss Vera Ludden, joins in the enterprise by keeping the garden records, and these records are rather comprehensive in scope.

Mrs. Ricker comes by her interest in gardening naturally, for both her grandfather, whom she visited often, and her mother, were avid gardeners, and her father took pride in his vegetable garden.

Ethel is a Past-President of the Sioux City Iris Club, and has been active in its affairs, as well as in the affairs of Region 21.

FERRIS AND MARGARET GASKILL

The Yunkers and Goodrichs of Wisconsin



The Gaskills, Ferris and Margaret, bought the acreage known as Greenbrier Farm in the rolling hills south of Barrington, Ill., in 1939, and in 1946 they built a permanent home in the midst of the evergreen grove and orchard started in 1939. The real surge into active and purposeful hybridizing started significantly in 1958, when Fritz retired from his factory managerial duties. Their iris plantings had already brought some local fame to Margaret as the "Iris Lady." Other things were accomplished along the way; as for instance, two sons and nine grandchildren. Some

time was spent, and interest still continues, in local civic affairs.

This enthusiast can write and talk voluminously about his favorite subject, and the subject is the Iris, the whole wide gamut of soils, bud count, judges who do not judge, fertilizers, bud placement, genetics, flower form, possible parents, soil improvement, recessiveness—If you listen, there is much to be learned.

Fritz came into prominence as a hybridizer when in 1964 his **MIDWEST MORNING** received 43 votes for an HC award. This was the result of a planned program to produce pinks with better stalk and larger flowers. **INTEGRITY**, from parallel breeding to **MIDWEST MORNING**, is also an iris worthy of the HM received in 1968. Likewise, the goal to produce improved yellows has resulted in **CANARY CADENCE** and **JANET MARIE**. A cross of **MARY RANDALL** and a brown seedling produced **ROBIN REDBREAST**. Of nine introductions made since 1965, four have received Honorable Mention.

These awards were obtained as the result of following a planned program of hybridizing which considered vigor, good stalk and flower form to be as important as color. Another goal was reached with **THREE GRACES**, a red-bearded white, which was named in honor of his mentors David Hall, Orville Fay and Nate Rudolph.

What will be next? Reds from pinks, better oranges with **MIDWEST MORNING** in their background? The combination of genes in **ROBIN REDBREAST** has wide possibilities. Visiting Greenbrier Farm in the coming years will be interesting. We are sure you will be welcome.

Teens and Twenties

Iris Smith

In 1959 I became involved in the National Robin Program of AIS as Division Director of the Regional Robins. A year or so later a young man wrote me from Washington wanting to be in a Robin with people his own age (nineteen). From this seed the Teens and Twenties Iris Robin was born. For a time it operated in connection with the Regional Division. Then I was relieved of my duties with this division to devote my time to Teens and Twenties. The Teens and Twenties became a Division in its own right. Inquiries from some who were too young for the regular Teens and Twenties brought about the development of the Twixt and Tweens, which is a group thirteen years of age or younger, operating in connection with the Teens and Twenties Division.

It has been slow going. There are so many things to divert a teenager's mind from letter writing. But the route list of that first Robin reads like the list of the most up-and-coming young hybridizers of today. That alone makes it very worth while. Today's route list will carry the names of the AIS officers and hybridizers of the future.

There rarely has been more than one Robin really flying at one time. Today there is one, composed entirely of young men aged thirteen to twenty. They are an enthusiastic group. At present there are seven; five of them beginning college and planning horticultural majors of one kind or another. All, I think, are hybridizers. One, about fourteen, lined out approximately 15,000 seedlings last spring.

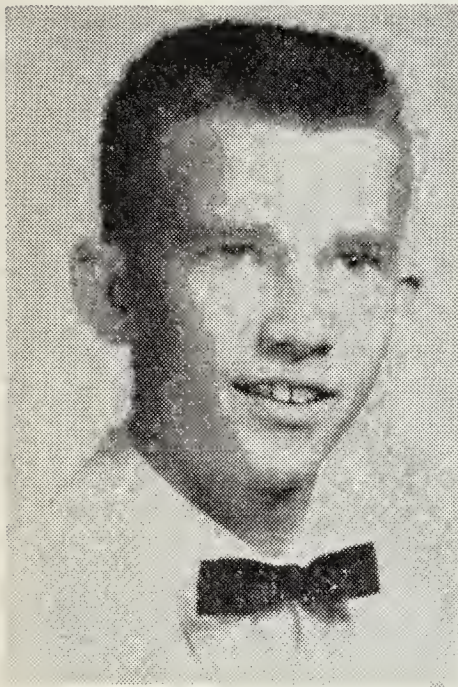
They now are working on two projects. The first is a study of the Judges Handbook, just for their own enjoyment and benefit. But I believe AIS will receive immeasurable benefit from the seven or eight young men conducting such a study. They eventually will cover all Judges Schools material. They filled out Judges Rating Sheets last spring for me on three irises, the same three for each boy. I purposely chose three very good irises but not real late introductions, because I wanted to be certain that they were widely enough distributed that there would be no doubt that each boy would see all three of them last spring. Some of the boys are already surprisingly knowledgeable judges of "What is a good Iris." One or two were not quite critical enough, but they will be next spring. Next spring they will rate the same three irises in order to compare their present judging ability with their ability after a year's study of the rules for judging irises. Eventually, I will have to ask a few of the Judges in each boy's Region to assist with this project. I hope I can find some who will believe that it is worth while as I do.

The other project is on color inheritance in irises, in which they made certain crosses among diploid irises. The seeds have been planted and records will be kept as to the number of crosses, the number of seeds planted, the number of colors and the number of irises of each color found among these crosses. The reason for using diploids is that it does not take such a large number of seeds for the Mendelian ratio to make its appearance. Only part of the boys are working on this project, as part of them already were too involved in other things to get started on it last spring. We have

other scientific projects in mind, and perhaps some of the boys will prefer one of them instead of the color-inheritance project.

There are two other Robins preparing to start. One is composed of young people in their early twenties. The other is the Twixt and Tweens, composed of youngsters thirteen years of age or younger. All that we ask of the child is that he or she be interested and able to write a letter. And, of course, we ask for the consent and cooperation of the parents. We welcome new members for either Robin. There also will be other regular Teens and Twenties Robins start as fast as there are applicants. But are our new irisarians to be all boys? Are the girls not interested in growing irises?

PHIL WILLIAMS



One of the notable accomplishments of youth is that of Phil Williams of Rockvale, Tennessee. He helped to organize the Twin States Iris Society, and at the age of sixteen is the president of that group. He also is a member of the Middle Tennessee Iris Society, and is the editor of the Newsletter for that group.

He grows about 500 irises, and has earned the money for his iris purchases by working on his father's dairy farm. He already is doing some hybridizing, and Iris Smith, of Teens and Twenties, reports him as a rather knowledgeable judge of what a good iris is.

He is quite an accomplished organist, and plans to study ornamental horticulture in college.

AT THE SPECIES LEVEL

The first year's operation of the seed exchange saw the mailing of over 800 packets of seed to gardens the world around. The establishment of this facility for all AIS members has been heralded as "successful" and its distribution of seeds is in its second season. Some "new" and many "most unusual" sorts of irises may be obtained from this source; there is some kind of extraordinary iris for every garden situation.

The accomplishments of the first year of operation of the Species Study Group include also the publication of the introductory section of the Species Study Manual and two issues of SIGNA, the group's newsletter, telling of activities around the globe, both with irises in the wild and in gardens. The third SIGNA is soon to be published, to include a very inclusive and informative article on the winter irises, *I. unguicularis*, a further addition to the contributions on this not well-known species and adding to the information given in the October Bulletin article. News of some discoveries and rediscoveries are always exciting. With the report that *Iris tigridia* was found anew in the Gobian Altai of Mongolia last

year, came news that it was being grown in, at least one private collection in the Orient, and just as the new strains of 'flu virus travel with the speed of the jet-liners, so also do the new migration of plants! And thus *I. tigridia* has reached our shores.

With the show classes of Iris species becoming more numerous and more fully represented, comes also the need for education in species matters. Some slide sets especially slanted toward orientation, identification and evaluation of various sorts of iris species are in preparation. Further announcement will tell when these will be available. At least one set representing as much of the material as can be crowded into a single program and accompanied by an explaining tape is in the plan. This will illustrate the botanical aspects on which the genus is divided taxonomically and illustrate the basic species of each of the natural groups, explaining what specific peculiarities characterize these groups, and within the groups themselves, some of the species and their own qualifications.

The Cohen monograph on the Pacific Coast Irises is being distributed in this country (It is a British publication,) through the Species Study Group; although included in the subscription to the group's publications, it is also offered separately on receipt of a dollar. This most excellent small booklet certainly sets a standard of excellence for us to shoot at in our own publications! Just why it should be that the British have traditionally and steadfastly been so much more species-aware is not readily understandable, but it is undeniably true.

Recently come to hand is a copy of Dr. Werckmeister's masterful compilation of all the names ever applied to any plant of the genus. At once it is seen to be a work that will stand as the standard on iris nomenclature for a good long time. We need such an infallible reference on just such matters for show purposes; if this should prove to be too complicated for ready referral, it certainly is to be recommended as a final authority to anything else that may be consulted.

Another winter season; soon the *reticulatas* will poke up as a surprise and another season will be upon us. Already pots of the almond scented *vartanii alba* have come and gone; what a little beauty, giving promise of garden plants that will be with us steadily for the next half-year. How many of us are aware that the *reticulatas*, and also the Spanish, the Dutch, the English, as well as the Juno Irises, are in danger of being declared to be non-irises? And what difference does it make anyway? It makes this difference; if this view is accepted and the bulb irises are recognized as constituting separate genera outside the genus IRIS, they will not be eligible in AIS shows. But what can we do about it? While there are certainly good enough reasons for these views, they are not strictly original with the present author. As long ago as 1812 all the bulbs except the *reticulatas* were removed to become other-than-iris, to subsequently be reinstated. It would seem that of all the bulbous sorts, the Junos (*Scorpiris* in proper Latin) might very well be regarded as constituting, as the author has pointed out, developments much farther from iris than such things as *Gladiolus* and *Belamcanda*, and may indeed belong elsewhere, (and in which case Salisbury's generic name *Thelysia* would seem to be the proper name of them).

It must here be pointed out that there is as much evidence in favor

of retaining the present arrangement of the remainder of the genus IRIS, with the Xiphion (Spanish, hybrid Dutch, and English irises) and the reticulatas as two equal-ranking sections of the sub-genus XIPHIUM. It is the opinion of the chairman of the AIS Species Committee that the basis of reference to be adopted for show purposes of classification and identification be declared to be Dr. G. H. M. Lawrence's "Reclassification of the Genus Iris" published Gentes Herbarium, April 1953, with the one possible exception of course, at the loss of the Junos.

For the seed list — Send self-addressed, stamped, long #10 envelope to: MRS. JOHN R. HARDY, 296 HUNSAKER LANE, EUGENE, OREGON 97402
For membership in the Study Group (\$2/year; \$5/3 years) mailed to: E. FREEMAN YENDALL, 24 IRVING TERRACE, KENMORE, N.Y. 14223

IN MEMORIAM

STAFFORD L. JORY

Professor Stafford L. Jory, a member of The American Iris Society since 1944 and an Honorary Judge, died on November 21, after suffering a heart attack. He had been a faculty member of the University of California School of Architecture at Berkeley for thirty-five years, retiring in 1956.

He developed a number of iris varieties, and was a judge at the Fourth Annual International Iris Competition in Florence, Italy.

Hubert H. Harris

Mr. Hubert H. Harris, of Helena, Arkansas, a long-time member of AIS, passed away on September 19, 1968. Mr. Harris numbered among his friends, not only the great iris personalities, but all who loved flowers and chanced to come his way. For those who knew him well, his memory will sustain our belief that flowers and friendships go together.

AMERICAN IRIS SOCIETY GUIDELINES FOR TRAINING OF JUDGES — NOVEMBER 1966

(AS REVISED APRIL 1968)

1. INTRODUCTION:

a. Since the HANDBOOK FOR JUDGES AND EXHIBITORS — 1965 will provide the primary bases for judges' training, possession of a copy of this Handbook by each judge and would-be judge is mandatory.

b. Activity reports will be required from each judge by the RVP, as deemed necessary.

c. A judge will be dropped from the accredited list for unsatisfactory performance. It will be the responsibility of the RVP to point out to the Board individual performances considered unsatisfactory, except failure by a judge to vote a timely ballot for two consecutive years must be ruled unsatisfactory performance. A judge who is dropped from the accredited list for unsatisfactory performance, or for non-payment of dues, cannot regain his judgeship, except by starting again under the same requirements as for a new candidate for judgeship.

d. The training program will be provided by the Regions, within the framework provided herein by AIS. Basically, it will be in three phases:

- (1) Reserve pool of candidates for apprenticeship.
- (2) Apprenticeship.
- (3) Accreditation.

2. REGIONAL QUOTAS FOR JUDGES:

The maximum number of AIS Judges in any Region for a given year must not exceed 15% of the official regional membership reported by the AIS Executive Secretary as of October 1 of the previous year. This 15% maximum quota includes all AIS Judges residing in the region, except: The RVP, former RVP's with subsequent unbroken AIS membership, Senior Judges, Honorary Judges, and AIS Judges transferred while in good standing into the Region from another region within the past three years. In the event that the Regional Vice President of any Region recommends to the Board for the coming year incumbent judges and apprentices whose total number exceeds the 15% quota, action will be taken to reduce the number to conform with the quota.

a. The Regional Vice President will reduce the recommended list to the allowable total.

b. If the Regional Vice President does not accomplish the required reduction, the AIS Board of Directors will remove the number of names required to bring the approved total within the quota. Judges so removed will be transferred back to the Regional Reserve Pool, from which they may be recommended (without additional training) for priority reappointment to their former status as soon as the regional quota will permit. Such transfers will be based solely on seniority. The last judge appointed will be the first to be transferred.

3. REQUIREMENTS TO BECOME MEMBER OF "RESERVE POOL":

a. A candidate must have been a member of the American Iris Society for at least three consecutive years immediately preceding the time he becomes an apprentice.

b. He must attend an approved judges training course, consisting of two or more sessions which total at least ten (10) hours of instruction. He must pass a written examination on the material covered. There should be a time lapse of at least six (6) months between sessions, but this time lapse will not exceed two (2) years.

c. Details of the judges training courses for each region will be drawn up and implemented by the RVP. The regional program must meet the minimum requirements set out in these guidelines.

d. The training sessions will consist primarily of lectures and "practice judging", both in garden judging and exhibition judging. A few slides may be used to supplement or illustrate lectures, but a "slide show" may not be approved as a judges training session. A minimum of one hour each in practice judging will be provided in garden judging and exhibition judging.

e. Competent instructors will be provided by the RVP. The examination papers will be graded by a committee selected by the RVP.

f. Credit may be allowed a candidate for attending a session in another Region other than his own, provided his RVP approves such attendance.

4. APPRENTICESHIP:

Individuals who have met the requirements outlined in Paragraphs 1 and 3 above, will be certified by the RVP to the regional "Reserve Pool." As vacancies in judgeships occur in the region, the RVP will recommend candidates from this "Reserve Pool" for Apprentice Judgeships, remaining within the 15% quota and complying with the AIS requirement that each candidate so recommended must be endorsed by at least five accredited AIS judges in the region. Persons so recommended will be considered by the AIS Board of Directors, and will be approved unless specific facts are presented which, in the opinion of the Board, nullify a recommendation for appointment.

5. ACCREDITATION:

To become accredited, an Apprentice Judge must, within three years from the date of becoming an Apprentice Judge, successfully perform the following, as a minimum:

a. Assist in judging two AIS - accredited iris shows under the tutelage of an AIS Judge. The same AIS Judge will not tutor the Apprentice Judge in both shows. The RVP may, if approved in advance by the Chairman, Judges' Training Program, substitute for one AIS-accredited iris show a two-hour training session under simulated show conditions. This session will be limited to apprentice judges only, with a maximum enrollment of ten (10), and instructions will be furnished by one or more AIS-accredited judges.

b. Judge seedlings and new varieties in a garden, during bloom, under the tutelage of an AIS Judge, for a minimum of two periods of two hours each. The same AIS Judge will not tutor the Apprentice Judge in both sessions.

c. After each show or garden session, the AIS Judge under whom the Apprentice Judge has trained will make a confidential, written report to the RVP on the potentialities of the candidate, as demonstrated in the training session.

d. After the Apprentice Judge has satisfactorily completed all apprentice training, the RVP will certify his name to the Board on the list of accredited judges. Action on this certification will be the same as set out in the final sentence of Paragraph 4, above.

6. *PARTICIPATION BY ACCREDITED JUDGES:*

In order to retain his status, each AIS Judge (except Senior and Honorary Judges) must participate in at least one Judges' Training Course during each three years of service. This participation may be either as an instructor or as an attendee. The tutoring of an Apprentice Judge on at least two occasions, as set out in Paragraph 5 above, will meet this requirement. It may also be met by instructing in or attending a training program on: (1) Judging specialized kinds of irises (Arils, Siberians, Spurias, etc.); (2) General refresher on important phases of judging; (3) The regular training sessions required of candidates in Paragraph 3 above. RVP's are encouraged to vary the types of training programs for this purpose, to meet the individual needs of the majority of their accredited judges who expect to take them. It is urged that the knowledge and talents of the skilled and experienced judges in each region be utilized to the fullest extent possible in training the less experienced newcomers to the judging ranks. A judge may meet this requirement by any of the above means in a region other than his own, provided he gives prior notice of his intentions to his own RVP.

7. *EFFECTIVE DATE:*

a. Effective with the 1969 Judges lists, new appointments will not be made for Exhibition Judges only. However, an Exhibition Judge already on an approved 1968 Judges list may, at his option:

(1) Continue as an Exhibition Judge so long as he meets all requirements for reappointment, or

(2) Complete the training required in Paragraph 5b above, after which he will be recommended by the RVP as a "full-fledged" AIS Judge.

b. Recommendations for new appointments by RVP's for apprentice judgeships or for accredited judgeships will be made in accordance with these Guidelines, effective November 1, 1968. It is expected that each RVP will implement this program in his Region on or before that date.

REVISION OF AWARDS SYSTEM

As Approved by the Board of Directors: November 2-3, 1968

It was voted to approve the following revisions of the AIS Awards System:

1. Requirements for various awards will be:

HC and RTG—All classes, 5 votes.

HM—TB, 25 votes; BB, IB, SDB, 15 votes; others, 10 votes.

AM—TB, 65 votes; BB, IB, SDB, 25 votes.

Special awards comparable to AM—Bearded irises, 15 votes; beardless, 10 votes.

2. The length of eligibility for the following awards will be:
 AM—Not less than 2, nor more than 4 years after HM.
 DM—Not less than 1, nor more than 4 years after qualifying award.
 3. The number of votes allowed each judge will be:
 HC and RTG—TB, 8 votes; others, 3 votes in each class.
 HM—TB, 12 votes; others, 3 votes in each class.
 AM—TB, 12 votes; Medians, 3 votes in each Medal class.
 Judges Choice—TB, 12 votes; others, 3 votes in each class.
-

It was voted to activate an award for irises of aril content which do not meet the requirements for the C. G. White Memorial Award. This award will be known as the WILLIAM MOHR AWARD, and will be restricted to Aril Society requirements re aril content and traits.

It was voted to discontinue the policy of activating "Color Cups." A committee was appointed for the purpose of making a study of ways and means by which eminent and revered people in iris history can be recognized for outstanding accomplishments.

ARILBRED AWARDS

C. G. White Memorial Award

To be eligible for the C. G. White Memorial Award, an iris must fulfill the following requirements.

1. It must have received an Honorable Mention Award, but no higher award.
2. It shall be shown by pedigree to be of fifty per cent or more aril content. It must clearly exhibit one of the acceptable aril forms and possess one of the acceptable traits for pattern.
3. It must be recorded with the Aril Society International.
4. The hybridizer must submit evidence of these traits to the Aril Society Recorder. Send 35mm color slide or other suitable picture showing a close-up view of the flower. Accompany the slide with a description of the aril traits displayed.

Acceptable Traits For Form

Onco type.

- a. Accentuated globular form such as that found in *I. susiana* and *I. gatesii*.
- b. Very large globular or broadly domed standards as found in *I. lortetii*, and falls as in "c" below.
- c. Extremely wide, rounded and recurved falls.

Regelia type.

- d. Long pointed standards and falls as found in *I. korolkowii*.

Acceptable Traits For Pattern

- e. A well-defined, unfading signal spot.
- f. A prominent "V" shaped spot surrounding the beard as in the regelias, or a combination of the "e" and "f" type signals.
- g. Conspicuous **aril** type veining or dotting of standards or falls, or both.

- h. Wide, or thick heavy beard; or broadly scattered beard as in some oncocyclii.
 - i. A linear beard as found in regelias, or a combination of both "h" and "i" types of beards.
 - j. Exaggerated styles, protruding well beyond the standards.
 - k. Clear, clean unpatterned aril color, if an *extremely* well-defined oncocyclus formed flower.
- Note: Haft marks or texture veining are not aril traits.

The William Mohr Memorial Award

Eligibility for the William Mohr Memorial Award is restricted to irises of at least one-fourth aril blood which do not meet the revised requirements for the C. G. White Memorial Award. They must have been recorded with the Aril Society International, and must have received an Honorable Mention Award, but no higher award.

CHANGE OF POINT SCALE FOR TB COLLECTION CLASSES

<i>Spectacle Value</i>	<i>POINTS</i>	
Proportion of Component Specimens	10	
Harmony of Display	10	20
<i>Flowers</i>		
Color	5	
Size	5	
Substance	10	
Form	5	25
<i>Stalks</i>		
Number of Open Blooms	15	
Branch Balance, Bud Placement	10	25
<i>Condition</i>		
Grooming	10	
Cultural Perfection	20	30
		100

Spectacle Value — The judge will evaluate the overall effect. The collection should be pleasing in symmetry and manner of display.

a. *Proportion of Component Specimens* — The proportion of branches to stalk, and flowers to branches will be considered. Is a pleasing relationship established between heights of component specimens?

b. *Harmony of Display* — Has a pleasing combination of colors been achieved? Appraise the overall effect of the symmetry established for the collection as a whole. *Flowers, Stalks, and Condition* will be evaluated by the same criteria as those established for individual specimen entries, except for the differences in point value.

BOOK REVIEW

A Guide to the Pacific Coast Irises, Victor A. Cohen. Published by the British Iris Society 1957; 16 drawings, map, 14 photos, 8 in color. Mr. Cohen's article in the April 1967 Journal of the Royal Horticultural Society prompted a great deal of renewed interest in the subject, the American Apogons of the Pacific Coast, an interest not only in the plant materials themselves, as reflected in the demands on the seed exchanges, but also in their literature.

Whereas Dr. Lenz's excellent papers (Aliso 4:1, 1958, and 4:2, 1959) will remain the all-comprehensive works on the subject, this new one will find great use as a field-manual for its directness and conciseness at no concession to accuracy; the photographs are very good ones and the most excellent drawings tell the novice what a thousand words do not tell so well.

To quote from the foreword by E. B. Anderson, "To those who are not trained taxonomists, what may be called a gardener's monograph with accurate descriptions . . . can be of great value in attempts to name our plants, and more particularly so when accompanied by such accurate drawings as is this example. To those who garden on acid or neutral soils the Pacific Coast Irises are well worth attention for their exquisite beauty and general ease of cultivation . . ."

(Available on receipt of one dollar sent to Mr. LeRoy Davidson at 911 Western Avenue #200, Seattle, Washington 98104.)

WANTED

By Gordon Blackwell, 377 Marbledale Road, Tuckahoe, New York 10707
SPURRED PREMIERE (Austin '64).

Sources of named cultivars of *reticulata* group; also letters from those who have had experience with *reticulatas*.

IRIS SLIDES FOR RENTAL

The American Iris Society maintains numbers of excellent sets of iris slides for rental. Each set contains 100 slides, 35mm size. A list of the names of the irises accompanies each set. Ideal for a program for your iris meetings and garden club meetings, these slides are a fine way to study the new irises. Are you considering, or would you like to see, some new irises? What better way than to rent a set of slides and keep informed on the newer varieties.

For that additional program fill-out the following sets are offered:

- . . . Set of the newer tall bearded irises, including many of the recent award winners—top favorites—and selected garden scenes.*
- . . . Set of various bearded species and hybrids, other than tall bearded, including standard dwarf, intermediate, table, and border bearded types, and some very special slides of the arils in various types.*
- . . . Set of various bulbous irises including *reticulatas* and *juno* irises. Also many species and hybrids of the beardless family including: Crested, Louisiana, Western natives, *Spurias* (including some of the most recent *spurias* just out), Siberians, and Japanese.*
- . . . Set of the ever popular, less expensive, fine bearded irises that have stood the test of time and grace any garden with their beauty and excellence.*
- . . . Set of irises at the AIS convention in Newark 1966. For those who could not go to Denver here is a picturization on film of many, many of the very newest irises. See them in the comforts of your own meeting room. Yes, you'll see new irises, gardens, and intimate glimpses of some of the iris personalities who attended the Newark convention.*

Requests for slides should be made well in advance for proper scheduling, preferably 30 days or longer. Include a second date if possible. Give the exact date desired so that slides can be sent insured airmail. They are to be returned in the same manner. The rental fee is \$5.00, payable in advance, for each set of 100 slides. Make checks to the American Iris Society and mail with your requests to:

ROBERT SCHREINER, Chairman, Slides Committee,
3785 Quinaby Rd., NE (R. 2), Salem, Oregon 97303

HYBRIDIZERS

IMMEDIATE ATTENTION

Members attending the Milwaukee convention will be asked to select their favorites among the guest irises in the tour gardens. For results of a similar poll at Berkeley last year, see page 50 of the July 1968 *Bulletin*.

In order for the **NEWER GUEST IRISES BALLOT** to be as complete as possible, each hybridizer who has sent to this year's tour gardens **REGISTERED** irises that have not won **HM** awards, is requested to send the names of the irises in this category, prior to April 1, to the AIS Executive Secretary, Cliff W. Benson, 2315 Tower Grove Blvd., St. Louis, Mo. 63110.

CHANGING YOUR ADDRESS?

Please give the AIS office at St. Louis one month's notice so we can arrange to give you uninterrupted service. In this way, you are assured of receiving your *Bulletins* promptly.

ATTENTION AFFILIATES

All affiliates are entitled to a free showing of AIS slides once a year. Be sure to give Mr. Schreiner thirty days' notice, and order the slides in the name of the affiliated club, giving the name of the president of the club.

All affiliates are entitled to one silver medal and one bronze medal, free of charge for their show. Order these at the time the report is sent to the Exhibition Chairman.

If there is a change in the name of the president of the club, be sure to notify Mr. Varnum, Mr. Benson and the editor of the *Bulletin* at once, so that the proper name and address can appear in the *Bulletin*, and that the *Bulletin* can be mailed to the proper address.

AIS MEMBERSHIP RATES

Annual	\$ 5.00	Sustaining	10.00
Triennial	12.50	Research	25.00
Family	6.00	Life	100.00
Family Triennial.....	15.00	Family Life	125.00

SECTION DUES

	<i>Japanese</i>	<i>Median</i>	<i>Rebloomer</i>	<i>Siberian</i>	<i>Spuria</i>
Single Annual	\$2.00	\$2.00	\$ 3.00	\$1.00	\$1.00
Single Triennial	5.00	5.00	7.50	3.00	2.50
Family Annual	2.50	2.50	4.00	2.00	1.50
Family Triennial	6.00	6.00	10.00	6.00	3.50
Annual Supporting	3.00	3.00	5.00	—	3.00

IMPORTANT: Section dues, if paid through AIS, **MUST** be for the same duration as your AIS dues. AIS **FAMILY** member desiring **SINGLE** Section membership, **PLEASE** indicate which person is applying for Section membership.

REGISTRATIONS—INTRODUCTIONS

Registrations \$3.00 each.

Introductions: Free recording. Be sure that your catalogue or printed list of introductions is filed with the registrar and that each is marked plainly. Irises not recorded as introduced are not eligible for awards higher than HC. Irises advertised in the October 1968 and the January, April and July 1969 AIS Bulletins are automatically recorded as 1969 introductions. Mail to J. Arthur Nelson, 3131 North 58th St., Omaha, Nebraska 68104.

BULLETIN ADVERTISING RATES

COMMERCIAL DIRECTORY (listings in alphabetical order)

Rates per four issues—no discounts

Single space (one inch—not to exceed six lines)\$12.50
Double space (not to exceed 12 lines)\$20.00

DISPLAY ADVERTISING

One-inch, single column.....\$ 9.00 One-half page\$32.50
One-quarter page..... 18.00 One page 60.00
One-third page 24.00

Note: Display advertising rates are per single issue. Cost of engravings extra.

Discount of 20% for each succeeding issue during the calendar year.

Send advertising copy and checks to:

THE AMERICAN IRIS SOCIETY
2315 Tower Grove Blvd., St. Louis, Missouri 63110

1969 MEMBERSHIP CAMPAIGN

We will continue the Membership Campaign this next year. The Campaign is from October 1, 1968 to September 30, 1969. Our fine showing in reversing the downward trend in A.I.S. members during the 1968 Campaign encourages your Membership Chairman to think that we may end the 1969 Campaign with a substantial growth. Our target remains the same: A NET GAIN OF NEW MEMBERS REALLY INTERESTED IN IRISES AND OUR SOCIETY'S OBJECTIVES.

RULES FOR AWARDS TO MEMBERS PARTICIPATING IN CONTEST

For every six new members secured, the participant will be awarded one single annual membership extension.

For every seven new members secured, the participant will be awarded one family membership extension.

Participants will be credited for the various types of membership to the following schedule:

TYPE MEMBERSHIP	WILL COUNT AS
Single Annual	1 new member
Family Annual	2 new members
Single Triennial	3 new members
Family Triennial	5 new members
Sustaining	5 new members
Research	10 new members
"Life Membership" (whether credited from new or present A.I.S. members)	25 new members
"Family Life Membership" (credited from new or present A.I.S. members)	30 new members
Change from Single Annual to Family	1 new member
Change from Single Triennial to Family	2 new members

RULES FOR CONTEST

1. Each new membership must be sent to the Regional Vice President or Regional Membership Chairman within one week after it is secured.
2. Each new membership should be reported to the RVP on a separate slip of paper (postcard size) showing name, address of participant securing the new member. This slip should be used by the RVP in reporting to the MEMBERSHIP CAMPAIGN CHAIRMAN.
3. New memberships are to be credited only to the participants securing them.
4. Renewal of memberships after lapse of one year will count as a new member.
5. New memberships received by the Secretary in the St. Louis office after September 30, 1969, will not be counted.

AWARDS FOR REGIONS

Cash awards are offered to the Regions upon the basis of net gain in membership. The purpose of these awards is to stimulate efforts in retaining the members we have. We accomplish little for our Society if a member drops out after one or two years of membership.

To the Region with the largest net gain in membership an award of \$50.00.

To the Region with the largest percentage gain in membership an award of \$50.00.

To the Region which ranks highest in the numbers and percent of new members who renew their membership an award of \$50.00.

Hugo Wall
Membership Chairman

SUMMARY 1968 MEMBERSHIP CAMPAIGN

Region	Members Oct. 1, 1967	New Members Rpt'd. by RVP 1968	New Members 1968	Members Oct. 1, 1968	Net Change
1 New England	243	0	35	251	+ 8
2 New York	293	1	48	306	+ 13
3 Penn. & Dela.	184	0	34	195	+ 11
4 Md, DC, Va, W. Va, NC	451	5	72	460	+ 9
5 SC, Ga, Fla.	136	19	46	164	+ 28
6 Mich, Ohio, Ind.	477	4	69	493	+ 16
7 Ky, Tenn.	360	45	57	330	— 30
8 Wis, Minn.	135	0	12	146	+ 11
9 Illinois	291	0	26	284	— 7
10 Louisiana	43	0	7	42	— 1
11 Mont., Idaho, Wyo.	118	4	11	115	— 3
12 Utah	101	16	46	144	+ 43
13 Wash., Oregon	287	14	48	300	+ 13
14 No. Calif., Nev.	384	38	65	398	+ 14
15 So. Calif., Ariz.	417	39	54	413	— 4
16 Canada	44	0	6	45	+ 1
17 Texas	523	38	54	492	— 31
18 Ks., Mo.	482	90	145	577	+ 95
19 N.J., Staten Island	134	0	15	142	+ 8
20 Colo.	148	0	26	162	+ 14
21 Ia, Nebr, ND, SD	244	41	42	266	+ 22
22 Ark., Okla.	393	65	77	409	+ 16
23 New Mexico	97	0	27	119	+ 22
24 Ala., Miss.	358	16	40	318	— 40
Foreign	158		5	175	+ 17
TOTAL	6,501	435	1,067	6,746	+245

Membership November 13, 19686,826

Fifteen Regions participated in Campaign reporting 435 members out of a total of 1,067. Seventeen Regions had gains in memberships; seven Regions had losses.

Awards For Participating In
1968 Membership Campaign

Region	Name & Address	Award
5	Mr. & Mrs. Charles Laughinghouse, 3524 Wilmot Avenue, Columbia, South Carolina 29205	2-Year Family
7	Mr. & Mrs. James W. Alexander, 344 Cassidy Avenue, Lexington, Kentucky 40502	1-Year Family
	Mr. & Mrs. Raymond N. Miller, 545 East Raines, Memphis, Tennessee 38109	1-Year Family
	Mr. Phillip A. Williams, Rt. 1 - Box 31-A, Rockvale, Tennessee 37153	1-Year Single
12	Mrs. James R. Hamblen, 2778 West 5600 South, Roy, Utah 84067	1-Year Single
	Mr. & Mrs. H. C. Hansen, 556 East 7th South, Logan, Utah 84321	1-Year Family
13	Mr. & Mrs. Rex P. Brown, 12624 84th Avenue, N.E., Kirkland, Washington 98033	2-Year Family
14	Mrs. Elsie Mae Nicholson, 5353 E. Morado Lane, Stockton, Calif. 95201	3-Year Family
15	Mr. & Mrs. Bernard Hamner, 1040 Perris, Perris, California 92370	1-Year Family
	Mrs. Mary Hoskins, 13 Holtby Road, Bakersfield, California 93304	1-Year Single
	Mr. & Mrs. George M. Roach, 2931 Tyburn Street, Los Angeles, Calif. 90039	6-Year Family
	Mrs. Barbara Serdynski, 3433 Laclede Avenue, Los Angeles, California 90039	1-Year Family
	Mr. and Mrs. John Tearington, 13902 S. Manor, Hawthorne, Calif. 90251	3-Year Family
	Mr. and Mrs. Collie Terrell, 926 Maple Ave., Wasco, Calif. 93280	7-Year Family
17	Mr. & Mrs. Z. G. Benson, 2211 Denver, Wichita Falls, Texas 78666	1-Year Family
	Mr. & Mrs. John C. Sexton, 3531 Monroe Avenue, El Paso, Texas 79930	1-Year Family
18	Mr. & Mrs. George Bender, 119 No. Chestnut, McPher- son, Kansas 67460	1-Year Family
	Mr. Clifford W. Benson, Rt. #3 - Baxter Road, Chesterfield, Missouri 63017	3-Year Single
	Mr. & Mrs. Charles Jendel, 5300 Porter, Wichita, Kansas 67204	9-Year Family
	Mr. & Mrs. Floyd Jones, 617 Fleming, Garden City, Kansas 67846	1-Year Family
21	Mrs. J. N. Cox, Rt. #1 - 107 Meadow Lane, Norfolk, Nebraska 68701	2-Year Single
	Mr. Leonard J. Michel, 420 Hilltop Road, Ames, Iowa 50012	1-Year Single
	Mrs. Ralph Ricker, Miss Vera Ludden, 1516 Ross Street, Sioux City, Iowa 51103	3-Year Family
	Mrs. John Withers, Green Acre Farm, R.R. #1 - Box #A-10, Mandan, North Dakota 58554	1-Year Single
22	Mr. & Mrs. Earl Brandon, Box #143, Bald Knob, Arkansas 72010	1-Year Family
	Mr. & Mrs. Perry L. Parrish, 4908 N.W. Grand Blvd., Oklahoma City, Oklahoma 73112	5-Year Family
	Mrs. Elmer Randall, Route #3 - Box #150-D, Wood- ward, Oklahoma 73801	1-Year Single

	Mr. & Mrs. Hoyt Smith, 138 Ridge Road, Little Rock, Arkansas 72207	2-Year Family
24	Mr. & Mrs. J. A. Rollestone, Jr., 6612 Foxhall Lane, N.W., Huntsville, Alabama 35806	1-Year Family
	Mr. & Mrs. R. P. Van Valkenburgh, 212 Longwood Drive, S.E., Huntsville, Alabama 35801	1-Year Family

Awards for Regions

Region 18 for the largest net gain in memberships, an award of \$50.00.

Region 12 for the second largest net gain in memberships, an award of \$25.00. Also, for the largest percentage net gain in membership, an award of \$50.00.

Region 23 for the second largest percentage net gain in membership, an award of \$25.00.

MINUTES OF DIRECTORS' MEETING

Pick-Congress Hotel, Chicago, Illinois

November 2-3, 1968

The meeting was called to order at 8:30 A.M. by President Fischer with the following in attendance: First Vice President Nelson, Second Vice President Bledsoe, Past President Carney, Directors Allen, Browder, Buxton, Cosgrove, Hamblen, Jacoby, McCaughey, Schreiner, Varnum, Wall, Wood, Treasurer Ackerman and Executive Secretary Benson. Absent: Dr. Durrance. Steve Varner, RVP Region #9, attended the sessions.

The four nominees for the Board of Directors whose names were submitted to the AIS membership (page 49, July 1968, Bulletin) in accordance with the bylaws, were declared elected for three-year terms. They are Mr. Earl T. Browder, Mr. Thomas E. Jacoby, Mrs. C. E. McCaughey and Mr. Ira E. Wood.

The following official motions were duly made, seconded and passed by the Board.

Approval of the minutes of the Board meeting in Berkeley, April 28-29, 1968, published in the July, 1968, Bulletin.

The reports by chairmen of the following committees were approved with appreciation of the valuable services rendered the Society:

Affiliates & Sections	Mr. Edward E. Varnum
Anniversary Bulletin	Mr. Ira E. Wood
Awards	Mr. J. Arthur Nelson
Exhibitions	Dr. Clarke Cosgrove
Garden Judges	Mrs. Walter H. Buxton
Historian	Mrs. C. E. McCaughey
Honorary Medals	Mr. Robert S. Carney
Judge's Training	Mr. Wm. T. Bledsoe
Membership	Dr. Hugo Wall
National Convention Liaison	Mr. Edward E. Varnum
Publications	Mr. J. Arthur Nelson
Registrations	Mrs. James R. Hamblen
Round Robins	Mrs. Peggy B. Grey (by Fischer)
RVP Counsellor	Mr. Robert S. Carney
RVP Representative	Mr. D. Steve Varner
Scientific	Mr. Herbert M. Parker (by Allen)
Slides	Mr. Robert Schreiner
Species	Mr. LeRoy Davidson (by Fischer)
Test Gardens — National	Dr. Ray C. Allen
Youth Committee	Mrs. Elizabeth H. Rowe (by Fischer)

Treasurer Jay C. Ackerman presented a report on the financial condition of the Society as audited by Harris, Reems and Ambrose, certified public accountants, Lansing, Michigan. The report was accepted with sincere thanks and appreciation and publication in the Bulletin was authorized.

Executive Secretary Benson reported on the present membership of the Society by Regions and States and reported that the Society had 6,810 paid up members

November 1st, as compared with 6,592 one year ago. Region #18 was reported as being the largest Region in membership. Region #6, second; Region #17, third; Region #4, fourth; Region #15, fifth; Region #22, sixth; Region #14, seventh; Region #7, eighth; Region #24, ninth and Region #2, tenth.

It was voted that Mr. Wm. T. Bledsoe be elected the new AIS president.

It was voted that Dr. Allen continue discussions with the American Horticultural Society regarding the publication of an iris handbook with the tentative expectations of publishing such a handbook in the spring of 1971.

It was voted that an organization within the AIS structure aspiring to become affiliated have no less than ten AIS members in their group.

The status of the revised Judge's Handbook was discussed. Completion date was expected to be late fall, 1969.

It was voted to amend AIS Guidelines for training of Judges, November, 1966, as revised April, 1968, as follows:

3. *REQUIREMENTS TO BECOME MEMBER OF "RESERVE POOL":*

b. He must attend an approved judges' training course, consisting of two or more sessions which total at least ten (10) hours of instruction or its equivalent. He must pass a written examination on the material covered. In this connection, the "open book" examination may be used as an instructing technique. This training must be completed in a period of two years from its beginning.

It was voted to accept the change of point scale for TB collection classes, page 48, 1965 Judge's Handbook, as published elsewhere in the Bulletin.

It was voted that the following motion be approved:

1. In the event that the RVP of any region recommends to the Board for the coming year incumbent judges and apprentices whose total number exceeds the 15% quota, action will be taken to reduce the number to conform with the quota.

a. The RVP will reduce the recommended list to the allowable total.

b. If the RVP does not accomplish the required reduction, the AIS Board of Directors will remove the number of names required to bring the approved total within the quota. Judges so removed will be transferred back to the regional reserve pool, from which they may be recommended (without additional training) for priority reappointment to their former status, as soon as the regional quota will permit. Such transfers will be based solely on seniority. The last judge appointed will be the first to be transferred.

It was voted to approve an appropriation of \$50.00 for the Membership Committee.

Membership Chairman Wall presented a report on the membership campaign for the period 1 October 1967 through 30 September 1968. A vote of thanks was extended to Dr. Wall and publication of the campaign results in the Bulletin was authorized.

A sincere vote of thanks was extended to Mrs. Melba Hamblen for her constructive study of the AIS award structure. Mrs. Hamblen's report was accepted with deep appreciation and publication in the Bulletin was authorized.

It was voted to appoint a committee to investigate and develop a plan which would allow fitting memorials to outstanding AIS personages. The plan would include the discontinuance of further color awards and set up a more suitable means of recognition for revered individuals of outstanding accomplishments. Efforts of the committee will be aimed at the establishment of a tax-free iris foundation. The committee consists of Dr. R. C. Allen (Chairman), Robert S. Carney, Robert Schreiner and Helen McCaughey.

It was voted to authorize the presentation of the National Test Garden Award, 1968, as follows:

Mrs. Melba Hamblen for HEATHER HALO

Mr. Walt Luihn for NIGHT SONG

Mr. Keith Keppel for BABBLING BROOK and NINEVAH

Mrs. Cora Pichard for BLUE BOUNTY

Mrs. Mattie Reinhardt for LITTLE BLACKFOOT

It was voted to discontinue the National Test Garden program of the AIS.

It was voted to cooperate with the Tom Duffy Travel Agency for the purpose of planning overseas horticultural tours.

It was voted to accept the innovation of an AIS Hybridizer's Kit with suitable ad placements in national horticultural magazines authorized.

It was voted to appoint a committee for the purpose of exploring and determining the feasibility of increasing the dues of the AIS as well as possible methods to reduce operating costs of the society. The committee will consist of Dr. Hugo Wall (chairman), Earl T. Browder, Ira E. Wood and Robert S. Carney.

The Hybridizer's Medal was awarded to Mrs. Tom M. Brown and Mr. Fred W. Cassebeer.

The Distinguished Service Medal was awarded to Mrs. Walter H. Buxton, Mrs. Peggy Burke Grey, Dr. Jack R. Durrance and Mr. Hubert A. Fischer.

The following members were appointed Honorary Judges:

Mr. Stedman Buttrick, Massachusetts	Dr. J. Arthur Nelson, Nebraska
Mr. Jay C. Ackerman, Michigan	Mr. Claude C. O'Brien, No. Carolina
Mrs. Preston E. Corey, Massachusetts	Bro. Charles Reckamp, Illinois
Mr. Larry Gaulter, California	Mr. W. F. Scott, Jr., Missouri
Dr. Lee W. Lenz, California	Mr. Walter Welch, Indiana
Mr. Tell Muhlestein, Utah	Miss Mary Williamson, Indiana

The following members were appointed Senior Judges:

Mrs. Harry L. Armiger, Michigan	Mrs. James E. McClintock, Ohio
Mrs. Carl R. Bacon, Michigan	Mr. Roy Oliphant, California
Mrs. Tom M. Brown, Washington	Dr. Joseph B. Parker, Jr., Kentucky
Mrs. Vivian M. Buchanan, Georgia	Mrs. Vay B. Sargo, Arkansas
Mrs. Drew Ferguson, Georgia	Mr. George A. Shoop, Oregon
Mr. Robert L. Jensen, Idaho	Mrs. Iris Smith, Oklahoma
Mrs. Ethel A. Johnson, California	Mrs. H. P. Tipton, Mississippi
Mrs. C. E. McCaughey, Oklahoma	Mrs. Margaret Tolleson, Georgia

Appointment of new RVPs for 1969 were made as follows:

2. Mr. Harry B. Kuesel, 19 Mary Lane, Greenvale, New York 11548.
10. Mr. Charles W. Arny, Box #511, U.S.L., Lafayette, Louisiana 70501.
11. Mrs. Don R. Holtz, P. O. Box #7, Kellogg, Idaho 83837.
15. Mr. Arthur B. Day, 279 "J" Street, Chula Vista, California 92010.
17. Mr. Lester E. Brooks, Route #1, Iowa Park, Texas 76367.
19. Mrs. Betty Wood, 37 Pine Court, New Providence, New Jersey 07974.
21. Mr. Leo W. Framke, Blencoe, Iowa 51523.

The following RVPs who have served either one or two years were reappointed for 1969:

- | | |
|------------------------------|-----------------------------|
| 1. Mr. Kenneth M. Waite | 12. Mr. Bion Tolman |
| 3. Mr. William T. Hirsch | 13. Mr. Herbert M. Parker |
| 4. Mr. Frank Sherrill | 14. Mr. Glenn F. Corlew |
| 5. Mrs. Vivian Buchanan | 16. Mr. Douglas Insleay |
| 6. Mrs. Elsie A. Zuercher | 18. Mr. Russell Morgan |
| 7. Mr. Franklin Tice | 20. Dr. John R. Durrance |
| 8. Mr. Clarence H. Protzmann | 22. Mr. Perry L. Parrish |
| 9. Mr. D. Steve Varner | 23. Mrs. Bernard Lowenstein |
| | 24. Mr. Joe M. Langdon |

Mr. Larry L. Harder was appointed Youth Committee chairman.

The following schedule of annual conventions was reviewed and approved:

1969 Milwaukee, Wisconsin	June 4, 5, 6, 7
1970 New York, New York	June 3, 4, 5, 6
1971 Wichita, Kansas	May 12, 13, 14, 15
1972 Salem-Portland, Oregon	Dates undetermined
1973 Philadelphia, Pennsylvania	Dates undetermined
1974 Cleveland, Ohio	Dates undetermined

The following officers were elected for the ensuing year:

President	Mr. Wm. T. Bledsoe
First Vice President	Mr. J. Arthur Nelson
Second Vice President	Dr. Hugo Wall
Bulletin Editor	Mr. J. Arthur Nelson
Treasurer	Mr. Jay C. Ackerman
Executive Secretary	Mr. Clifford W. Benson

A vote of thanks was extended to the Northern Illinois Iris Society for their thoughtful and gracious hosting of a dinner and fellowship hour for the Board on Saturday evening.

The Board meeting was adjourned at 12:00 Noon November 3rd.

CLIFFORD W. BENSON
Executive Secretary

REPORT OF THE TREASURER

For Fiscal Year Ending September 30, 1968

Current Assets

Cash in Banks:

Central West End Bank, St. Louis (transfer acct.)	\$ 3,184.04
Central West End Bank, St. Louis (petty cash)	1,000.00
American Bank & Trust Co., Lansing (admin. acct.)	785.67
Total Cash in Banks	\$ 4,969.71

Reserve Funds

American Bank & Trust Co. (savings acct. #12749)	\$20,860.54
American Bank & Trust Co. (scientific & research acct. #14787)	9,158.46
Total Reserve Funds	\$30,019.00

Investments

7 U.S. Series J Bonds \$1000 Maturity Value each	\$ 5,040.00
2 U.S. Series J Bonds \$ 500 Maturity Value each	720.00
Total Investments at Cost	\$ 5,760.00

Physical Assets (Estimated)

Furniture and Equipment	\$ 1,631.00
Books, Merchandise, Checklists, Bulletins, etc.	519.00
Exhibition Supplies	1,500.00
Color Slides	100.00
2250 — 1959 Checklists at cost	5,513.00
Total Physical Assets	\$ 9,263.00

Total Net Worth	\$50,011.71
Loss in Net Worth	\$ 1,960.23

STATEMENT OF RECEIPTS AND DISBURSEMENTS

Cash in Banks, October 1, 1967

Easton-Taylor Trust Co., Petty Cash Account	\$ 1,000.00	
Easton-Taylor Trust Co., Transfer Account	5,106.13	
American Bank & Trust Co., Admin. Account	3,236.76	\$ 9,342.89

Cash Receipts for Fiscal Year		43,339.52
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Transferred from Scientific and Research Account		None
		<u>\$52,682.41</u>

<i>Disbursements for Fiscal Year</i>	\$44,774.75	
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Transferred to Other Accounts:

Cash Reserve	\$ 813.98	
Scientific and Research	2,123.97	2,937.95
		47,712.70

Cash in Banks as of October 1, 1968

Central West End Bank, Petty Cash Account	\$ 1,000.00	
Central West End Bank, Transfer Account	3,184.04	
American Bank & Trust Co., Admin. Account	785.67	\$ 9,342.89

STATEMENT OF RECEIPTS

Memberships

Renewal Single Annual	\$12,221.59
Renewal Family Annual	4,720.98
Renewal Single Triennial	4,107.99
Renewal Family Triennial	1,290.00
New Single Annual	3,665.20
New Family Annual	852.00
New Single Triennial	562.00
New Family Triennial	450.00
Sustaining	101.00
Research	200.00
Single Life	800.00
Family Life	375.00
Affiliate	125.00
	\$29,470.76

Other

Dues Collected for Sections of Society	\$ 1,368.00
Dues Collected for BIS	573.00
Books, Color Charts and Merchandise for Resale	1,183.69
Bulletins	167.25
Old Check Lists	72.50
Slides	205.00
Membership Tapes	300.86
Bulletin Advertising	3,186.10
Registration Committee	1,437.22
Exhibition Committee	2,498.30
Miscellaneous	391.39
Interest Earned	1,099.61
1959 Check Lists	207.50
Research Gift — Northwest Median Society	47.93
Research Gift — Walla Walla Iris Club	100.00
Research Gift — Memphis Iris Pins	84.34
Research Gift — Mrs. Earl Korn Memorial and Other	12.50
Research Gift — Convention Excess Region 14	937.57
	\$13,868.76

Total Receipts\$43,339.52

STATEMENT OF DISBURSEMENTS

Bulletin Expense

Salaries	\$ 2,440.00
Printing	11,398.03
Engravings and Photography	1,817.55
Postage and Envelopes	1,269.41
Supplies	29.53
Miscellaneous	98.60
	\$17,053.12

Secretary's Office Expense

Salaries	\$11,430.00
Postage and Shipping	1,317.44
Printing	380.05
Supplies	226.06
Telephone and Telegraph	141.38
Insurance	503.00
Refunds	123.60
Secretary Travel Expense	327.89
Books, etc. for Resale	1,167.38
Gifts (in lieu of rent)	1,000.00
Miscellaneous	287.25
Equipment Repairs and Maintenance	108.76
Advertising	797.52
	\$17,810.33

Other Expenses

Awards Account	\$ 1,379.50
Exhibition Account	2,059.47
Membership Account	1,797.92
Registration Account	1,601.60
Robin Account	184.16
Test Garden Account	50.38
Slides Account	82.80
RVP Account	87.90
Officers Printing Account	127.04
Payroll Taxes	647.53
Judge's School Committee	5.00
BIS for American Memberships — 1967	520.00
Dues Returned to Sections of Society	1,368.00
	<u>\$ 9,911.30</u>
<i>Total Disbursements</i>	<u>\$44,774.75</u>
Transferred to Scientific Research	2,123.97
Transferred to Cash Reserve	813.98
Total Disbursements & Transfers	<u>\$47,712.70</u>

Jay C. Ackerman, *Treasurer*

DUPLICATE OF STATEMENT REQUIRED BY THE ACT OF OCTOBER 23, 1962, (SECTION 4369, TITLE 39, UNITED STATES CODE) SHOWING THE OWNERSHIP, MANAGEMENT AND CIRCULATION OF THE BULLETIN OF THE AMERICAN IRIS SOCIETY.

1. Date of filing: October 1, 1968.
2. Title of publication: BULLETIN OF THE AMERICAN IRIS SOCIETY.
3. Frequency of issue: Quarterly—January, April, July and October.
4. Location of known office of publication: 2315 Tower Grove Blvd., St. Louis, Missouri 63110.
5. Location of publishers: 2315 Tower Grove Blvd., St. Louis, Missouri 63110.
6. Names and addresses of publisher and editor: The American Iris Society, 2315 Tower Grove Blvd., St. Louis, Mo. 63110; Editor, J. Arthur Nelson, 3131 North 58 St., Omaha, Nebr. 68104.
7. Owner: The American Iris Society, 2315 Tower Grove Blvd., St. Louis, Missouri 63110. No stockholders—only dues paying members (horticultural).
8. Known bondholders, mortgagees, and other security holders owning or holding one percent or more of total amount of bonds, mortgages, or other securities: None.
9. The purpose, function, and nonprofit status of this organization and the exempt status for federal income tax purposes have not changed during the preceding twelve months.
10. *Extent and Nature of Circulation*

	<i>Average No. Copies Each Preceding Issue During 12 Months</i>	<i>Single Issue Nearest to Filing Date</i>
A. Total No. Copies Printed	6,075	6,200
B. Mail Subscriptions	5,595	5,910
C. Total Paid Circulation	5,595	5,910
D. Free Distribution	125	30
E. Total Distribution (Sum of C and D)	5,720	5,940
F. Office Use, Left-over, Unaccounted, Spoiled after Printing	355	260
G. Total (Sum of E and F)	6,075	6,200

I certify that the statements made by me above are correct and complete.

CLIFFORD W. BENSON
Executive Secretary

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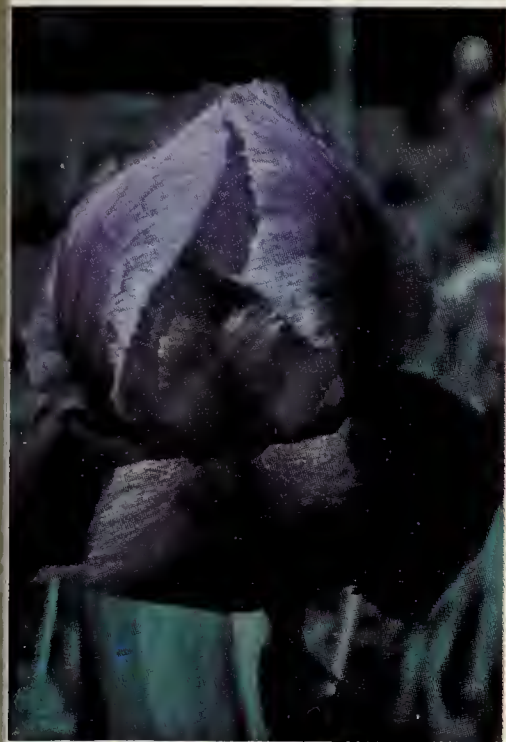
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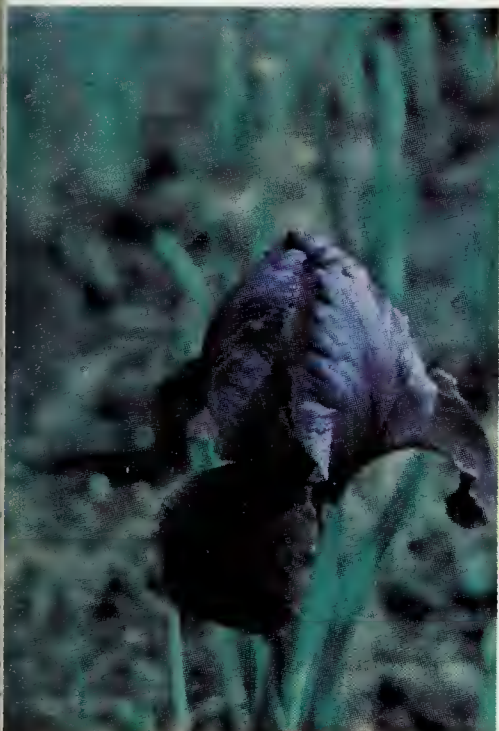
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IN 1968

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BULLETIN of the
AMERICAN IRIS SOCIETY

JANUARY 1969
NUMBER 192

PRINTED IN TWO SECTIONS • SECTION 2



INTRODUCTIONS AND REGISTRATIONS IN 1968

Corrections in Earlier Registrations

ASPEN COUNTRY (Mc Clure, R. 1965). Change of classification to BB, 26".

BABY DOLL (Mrs. Luzon Crosby, R. 1958). Change of classification from MTB to BB.

BLUE MOUSE (Richer, R. 1934). Change of classification to MTB, 20".

COUNTRY POET (Les Peterson, TB, R. 1967). Correction of parentage to: LP 63-99 (Crescendo x Tantallon) X LP 63-55 (involved line of red and yellow sdls.)

IVORY TOUCH (Hamblen, R. 1967). Correction as follows: Sdlg. M63-13C. IB, 15", M-L, Y1Pcm. Cream self with gold midrib and whiskering on F; orange beard. Gold Buttons X H9-163: (Doriot blended purple sdlg: I. mellita x pink sdlg. x Hamblen small pink sdlg. involving Pink Tower, Radiation, Pink Enchantment, Cathedral Bells).

LILLIAN ELIZABETH (A. W. Johnson, TB, R. 1967). Correction of parentage to Whole Cloth X Allegiance.

LITTLE BRITE EYES (Lucille Kavan, MDB, R. 1965). Change of name. (Registered as Velvet Beauty).

MARY BARNARD (Anderson, Unguicularis, R. 1962). Correction of name. (Registered as Maey Barnard).

MISS TEENAGE (Emma Cook, R. 1967). Correction of classification to BB, 27½".

UPPER ROOM (D. Steve Varner, TB, R. 1967). Correction of parentage to: 2130 (Whole Cloth x Lavendula) X 225 (146 x Branch 5922).

VELVET BEAUTY (Kavan, MDB, R. 1965). Name changed to LITTLE BRITE EYES.

YOUNG LOVE (Hazel Schmelzer, SDB, R. 1966). Correction of height to 10".

1968 REGISTRATIONS AND INTRODUCTIONS

Records of 1968 introductions registered in previous years are indicated with a *; for example, *ABOU BEN ADHEM. A change in name or release of name is indicated with a #.

- *ABOU BEN ADHEM (J. Holden, Onco hybrid, R. 1967). Holden 1968.
- ABSTRACTION (Dorothy Palmer, R. 1968). Sdlg. 965D. TB, 36", M, GY4Wcm. S. greenish yellow (RHS 160B); F. white with border same color as S; ruffled; greenish yellow beard. 4460A (((Butterfly Blue x 1353G ((Faught White x Spanish Peaks) x sib))) X Jungle Fires. HC 1967.
- AFFECTION (Glenn F. Corlew, R. 1968). Sdlg. 339-5E. TB, 30-32", M-L, O1P. Pale pink self; tangerine-orange beard. 84-2-60 ((17-1-58 (Snow Flurry x Pink Formal) x Frost and Flame)) X Signature. HC 1968.
- *AFIRE (Tom Craig, TB, R. 1966). Craig 1966.
- AFRICAN QUEEN (Jeannette Nelson, R. 1968). Sdlg. 64-112-4. TB, 38", ML, O1DD. Very dark brown self; darker at haft and edges; dark yellow beard. Western Welcome X Torch Bearer.
- AFTER IMAGE (Mrs. F. Allen Brown, R. 1968). Sdlg. 61-14-B. TB, 34-35", M, OY5P. S. pale alabaster pink, regal above deeper pink and gold throat; F. pink with blending of lime and gold, ruffled; pale alabaster pink stylearms and beard. Jan Elizabeth X (Emerald Fountain x Peach Plume). Landsend 1968.
- AFTER SUNDOWN (R. H. Bailey, R. 1968). Sdlg. 64-8. TB, 36", L, OY5D. Golden brown self. (Unknown x Daybreak) X Mary Randall.
- *ALBINO PLUMES (G. Plough, TB, R. 1967). Eden Road 1968.
- AL BAYDA (Eric L. Silvera, R. 1968). Sdlg. LL14-6. Arilbred, 32-34", E, V3LF. S. orchid; F. purple. Kalifa Gulnare sdlg. X (Ahmed Aga x Kalifa Gulnare sdlg.).
- ALCALDE (Sanford Babson, R. 1968). Sdlg. O37-7. TB, 40", M, V1D. Deep indigo violet self; blue beard. Goodness X J50-10 (Voodoo x Storm Warning). Melrose 1968.
- ALL AFLAME (Gordon Plough, R. 1968). Sdlg. 62-34-39. TB, 37", EML, YO3P. S. tangerine-orange (Wilson 9/3); F. cadmium orange (between 8/2 and 8/3); tangerine marigold orange beard. Marilyn C X Orange Parade.
- *ALL SEASON (Eva Smith, TB, R. 1967). Smith's Iris Gdns. 1968.
- ALLURA (Opal Brown, R. 1968). Sdlg. 7-32D14. TB, 34", M, VB1L. Lavender-blue self; F. heavily laced, edges deeper, lighter in center area; beard white, brushed lemon. 5-6A12 (Rippling Waters x 3-5E4) X 5-7A5 (3-5E4 x Rippling Waters).
- *ALMOND PINK (Margaret Beck, TB, R. 1967). Misty Hills 1968.
- ALPEN MAJESTY (Dr. Lloyd Zurbrigg, R. 1968). Sdlg. 65-2-5. TB re., 36", M & re., RV3LD. S. light tone of beetroot purple veined deeper; F. beetroot purple with some yellow marks high on haft by tangerine-orange beard. Alpenrose X Double Majesty.
- ALPINE MUSIC (Mrs. Lucy Delany, R. 1968). Sdlg. 66-211. SDB, 12", M, Y3Lcm. S. deep cream; F. cream with deeper edge, green halo; wide blue beard. Snow Goddess X blue pumila sdlg.
- AMBER ACCENT (Gordon W. Plough, R. 1968). Sdlg. 62-62-4. TB, 34", ML, RV4Y. S. grayed tone of imperial purple (Wilson 33/3)

in center blending to buffy lavender on ruffled and lightly laced edges; F. mimosa yellow (602) on hafts, lighter in center, blending to tan edging; ruffled and lightly laced; beard orange in throat, chrome yellow tip. 55-54-5 (Kachina Doll sib) X 59-169-36 (Pianissimo x Mayberry 56-9-1).

*AMBERITA (Gordon Plough, BB, R. 1967). Eden Road 1968.

AMBER RAYS (Earl Roberts, R. 1968). Sdlg. 67R40. IB, 19", M, O3Pcm. S. creamy pink, edged golden yellow; F. yellow with amber pink flush, edged golden yellow; solid red-tangerine beard; tendency to rebloom in fall. 65R31 (pink sib to Lenna M) X Fall Majesty. HC 1968.

AMBER TOUCH (Earl Roberts, R. 1968). Sdlg. 68R24. SDB, 13", M, O1Pcm. S. palest oystershell pink; F. same with blended bittersweet spot, 1/2" edge of pink; beard pale lilac to bittersweet. Pink Amber X Jones 691-1 tall orange. HC 1968.

*AMETHYST ACCENT (K. Kidd, Arilbred, R. 1965). Melrose 1968.

*ANGEL BUTTERFLY (Corliss, Spuria, R. 1964). Coward's 1968.

ANGELIC ADVOCATE (Arthur Hazzard, R. 1968). Sdlg. 597. Jap. double, 36", M, RV5. S. none; F. light red-violet with dark red-violet veining from bright yellow signal to edge of F; dark red-violet stylearms, feathered. 49 (Caroline G. Childs x unknown) X unknown. Hazzard 1968.

*ANGEL MUSIC (Alta Brown, SDB, R. 1967). Brown's Iris Gdn. 1968.

ANGEL SKIN (John F. Neugebauer, R. 1968). Sdlg. LA-64-11. Louisiana, 30", M, OP4Wcm. S. sea shell pink; F. pink to white, green and yellow crest. Mistis X Baby Ruth.

ANNE MICHELLE (Arthur Watkins, R. 1968). Sdlg. 64-16-A. TB, 30", M, R1P. Pink (amaranth rose 530/3) self; light peach beard. (((Party Dress x (Overture x Pink Lace) x (V20 x Pink Lace)) x Mary Randall))) x Pink Fulfillment))) X Pink Haven. Old Brook 1968.

APACHE TRAIL (Marvin Olson, R. 1968). Sdlg. 65-25A. TB, 34", M, YO5. Butterscotch self; very ruffled. ((Happy Birthday x Limelight) x Butterscotch Kiss)) X Ecru Lace. HC 1967.

APPLEJACK (Schreiner's, R. 1968). Sdlg. V 568-A. TB, 37", L, Y5L. Russet to honey peach blend. M 768-B (Pathfinder x Inca Chief) X R 118-1 (Amethyst Flame x Pretty Carol). Schreiner's 1968.

*APRICOT CROWN (Harry Hite, TB, R. 1967). Hite's 1968.

*APRICOT DRIFT (Romona Blodgett, BB, R. 1967). Blodgett 1968.

ARABIAN MOSQUE (W. G. Kellie, R. 1968). Sdlg. F 67-1. Aril hybrid, 10", E, O3Dcm. S. silver beige ground, very fine maroon veining; F. silver beige, heavily veined maroon; large round black signal; black beard; maroon styles. Chaldean Treasure X Persian Brass.

ARCTIC ANGEL (Marvin Olson, R. 1968). Sdlg. 68-1A. TB, 36", M-L, W1W. Pure white self; white beard; ruffled; lacy styles. Arctic Fury X Arctic Torch.

ARCTIC DAWN (Marvin Olson, R. 1968). Sdlg. 66-1A. TB, 36", M, Y4W. S. canary yellow (Wilson 2/3); F. white with canary yellow (2/2) at haft. ((Cliffs of Dover x Gay Princess) x (Pink Cameo x Pink Formal) x Mary Randall)) X Marshmallow. HC 1968.

- ARCTIC FANTASY (Marvin Olson, R. 1968). Sdlg. 66-7B. TB, 36", M, W1V. White self; red beard; blooms open pale orchid and become pure white. Rippling Waters X Arctic Flame. HC 1967.
- ARCTIC TORCH (Marvin Olson, R. 1968). Sdlg. 66-7A. TB, 36", M, W1. Pure white self; bright red beard; ruffled bloom. Rippling Waters X Arctic Flame. HC 1966.
- *ARDI LOY (Les Peterson, BB, R. 1967). Tell 1968.
- ATHENE'S LACE (Esther F. Tams, R. 1968). Sdlg. T-17-64. TB, 34", E-L, V1L. Wisteria orchid self; ruffled and laced; white beard tipped yellow. Grecian Urn X Whir of Lace.
- ARLAND (L. Freudenburg, R. 1968). Sdlg. 67-22. TB, 32", M, Y1F. Aureolin yellow, white area with heavy gold veining around large orange beard; fluted and crimped; fragrant. Rainbow Gold X Nike. Freudenburg 1968.
- ATTRACTIVE (Tom Craig, R. 1968). Sdlg. 7B80Q. TB, 32", M, W4V. S. white; F. digitalis. Toll Gate X Emma Cook.
- AUF WIEDERSEHEN (G. F. Hanson, R. 1968). Sdlg. 22-307. TB, 32", L, Y5P. Pale creamy-white washed light yellow at haft; lemon yellow beard. Soft Shoulders X Crinkled Ivory.
- AURA (W. A. Payne, R. 1968). Sdlg. 1140. Japanese, 42", E, VL4Wcm. Six-petal regular form; light violet with heavy white veins; style branches white, edged and tipped light violet. Snow Glitter X 640 ((30_{F3} (Rishono x Iso-no-nami) x Joyous Cavalier_{F3})).
- *AUTUMN ELEGANCE (Raymond G. Smith, TB re., R. 1967). Smith 1968.
- *AUTUMN NIGHT (Raymond G. Smith, TB re., R. 1967). R. Smith 1968.
- AZURE GOLD (Mrs. J. R. Hamblen, R. 1968). Sdlg. H64-16-68. TB, 36", M-L, YV4cm. S. yellow (10A) shot with violet; F. violet (87B) lightening toward haft and bordered yellow; orange beard tipped lighter. Lilac Champagne X Rippling Waters x 7-55 sibbed: ((Palomino x Radiation x Great Lakes)) x ((Helen McGregor x Hit Parade) x Palomino)).
- *BALKAN GLACIER (Ben Hager, TB, R. 1967). Melrose 1968.
- *BALLET BABE (D. Smith, BB, R. 1965). Fleur de Lis 1968.
- BALLYHOO (Keith Keppel, R. 1968). Sdlg. 64-37L. TB, 38", M, Y4V. S. light yellow (Maerz & Paul 10-H-1); F. veronica violet (43-H-9) washed cornation purple (46-L-8) on hafts, shaded dove grey (45-C-1) toward edges; beard white tipped yellow. Siva Siva X Diplomacy.
- *BAMBOO CURTAIN (Rex Brown, TB, R. 1967). Brown's Iris Gardens 1968.
- BANDOLIER (Gordon Plough, R. 1968). Sdlg. 63-4-20. TB, 40", EML, Y4BV. S. golden buff; F. methyl violet (Wilson 39/3) with color gradually intensified toward beard, lighter area each side of beard; bordered golden buff; white beard tipped orange. Bon Vivant X North Country.
- BATTLE HONORS (Jesse E. Wills, R. 1968). Sdlg. 50-63. TB, 34", M, R3F. S. brown-red; F. rose-red; bronze beard. 58-58 X King's Mountain.
- BEAUTY TIP (Gordon Plough, R. 1968). Sdlg. 62-102-15. TB, 34", EML, W1W. Pure white self; ruffled S; beard coral pink (14/2). 59-106-10 (Kiss of Fire x Cloud Dancer) X 57-38-99 (Pretty Gay x Revel).

- BEAUX ARTS (Gordon Plough, R. 1968). Sdlg. 63-43-86. TB, 36", EML, RV3P. S. between phlox pink (Wilson 625/3) and mallow purple (630/3); F. lighter tint of S. blending to clean buttercup yellow; beard saturn red (13/1). Rippling Waters X 59-41-22 (Cloud Dancer x Whir of Lace).
- *BELLE LOU (Mertzweiller, La., R. 1962). University Hills 1967.
- *BETHLEHEM SONG (Doris Foster, Arilbred, R. 1967). Tell 1968.
- BIB 'N' TUCK (Doris Foster, R. 1968). Sdlg. 66-7-1. Aril-Med., 19-22", M, Y3LF. S. light primrose yellow; F. medium primrose yellow; yellow beard. Brassie X Bethlehem Star.
- BIG BLUE (Dr. Currier McEwen, R. 1968). Sdlg. 61/Cas 4-3. Siberian, 34", EM-LM, BV1Fcm. S. RHS 89C; F. 89B, medium-sized white blaze; style 89C. White Swirl X unknown. Colchicine induced chimera.
- *BIG JIM (James Tucker, TB, R. 1966). Southern Meadows 1968.
- BILL K. (Irene Harper Silfies, R. 1968). Sdlg. 6568. TB, 36", M, Y1Pcm. S. gilt dusted cream, greenish cast; F. oyster white; brown-gold hafts; brown-gold beard underlined grayed violet. Ruffled Organdy X Lula Marguerite.
- *BIRTHRIGHT (Berndt, TB, R. 1963). Berndt's Garden 1968.
- *BISCO (Tom Craig, TB, R. 1964). Craig 1966.
- BLACK BART (Hazel Schmelzer, R. 1968). Sdlg. 29-7-28. TB, 37", EML, R1DD. S. very near black on the red side; F. same but velvety. Dark Fury X Ecstatic Night.
- BLACK BIT (Alta Brown, R. 1968). Sdlg. D 704-1. SDB, 11", E, R1DD. S. deepest red-black; F. deepest sooty red-black, slightly lighter at edges; near self beard. Black Baby X Lilli-Var.
- #BLACK MIDNIGHT (B. F. Schreiner, TB, R. 1953). Name released.
- *BLACK MONK (Voris, TB, R. 1961). Voris 1968.
- BLACK PANSY (Caroline DeForest, R. 1968). Sdlg. 65-36A. TB, 32", M, V1DD. Black self, velvety; dark brown beard. Allegiance x (First Violet x Violet Hills) X Black Swan.
- *BLAZING FURY (Eva Smith, TB, R. 1967). Smith's Iris Gdns. 1968.
- *BLOODSPOT (Tim Craig, SDB, R. 1966). Craig 1966.
- BLUE APRON (Carl Quadros, R. 1968). Sdlg. 62-23-1. TB, 34-36", M, W4Bcm. S. pure white; F. white from haft to about 1/4 of F., balance sky blue; beard light yellow. 59-63 (Melodrama x Whole Cloth) X Emma Cook. HC 1966.
- *BLUE BURN (McGarvey, Siberian, R. 1965). Old Brook 1968.
- BLUE DOVE (Bennett Jones, R. 1968). Sdlg. 832-1. TB, 34", M, GB3LF. S. capri blue (52/2); F. 52/3; tangerine beard. 745-1 (Frances Kent, Mary Randall, Pink Enchantment, Party Dress lines x Crystal Flame) X 730-1 ((Pink Enchantment x Party Dress) x Fanfare Orchid)). HC 1968.
- BLUE EVENING (Mary Louise Dunderman, R. 1968). MTB, 20", M, B1F. Medium blue self. From various MTB sdlg. involving Widget, Chewink, Siskin, etc.
- BLUE LEW (L. S. Leslie, R. 1968). Sdlg. 282. TB, 31", M-L, VB1. Intense blue self shaded violet; cream beard tipped

- blue. Storm Warning X Pierre Menard.
- *BLUE SECRET (Alta Brown, SDB, R. 1967). Brown's Iris Garden 1968.
- BLUE SIGNAL (Mrs. D. Hansford, R. 1968). Siberica, 36", L, B1P. Pale blue self with darker blue signal patch. Charm of Finches X Sdlg. of same.
- *BLUE SPACE (Albert Motsch, SDB, R. 1967). Motsch 1968.
- BLUE VISION (Alta Brown, R. 1968). Sdlg. M 1059. IB, 22", E, VB1L. Light blue self (Wilson flax blue 642/1); ruffled; light blue beard. TB 58-33-9 blue (Starlift x Lady Ilse) X Pearl Shell.
- *BLUE WADI (Corliss, Spuria, R. 1964). Coward's 1968.
- BOB MATHIAS (Hilda Fail, R. 1968). Sdlg. H-27. TB, 38", E, B1D. Deep cornflower blue (Wilson 742) self. Eleanor's Pride X White Flutter. Hilda's 1968.
- BONUS (Dorothy Dennis, R. 1968). Sdlg. 6611. IB re., 24", EM & re, Y2cm. S. solid pale yellow faintly dotted cinnamon; F. white marked vivid yellow, yellow border, white area around strong yellow beard. Twice Blessed X unknown.
- BORDER BEAUTY (Tom Craig, R. 1968). Sdlg. 7B80-10. BB, 24", M, W4V. S. white; F. digitalis, white accent. Toll Gate X Emma Cook. Craig 1968.
- *BOSTON (Hazel McCaffrey, IB, R. 1962). Crooked Creek 1968.
- BOY SCOUT (Helen Reynolds, R. 1968). Sdlg. 6-67. BB, 15", M, 05D. S. olive toned golden brown; F. brown with slight green tone. Jungle Shadows X 63-61 (51-199 red x Privateer). El Dorado 1968.
- *BRAMBLE QUEEN (Granger, Louisiana, R. 1962). Granger 1968.
- BRANDON GROVER (David Ladd, R. 1968). Sdlg. 32E. TB, 34", E, W4Y. S. white with very pale yellow tint; F. soft light tan-yellow, darker around beard. Unknown parentage.
- BRASS BUTTON (H. E. Briscoe, R. 1968). Sdlg. 6586A. MDB, 6", E, Y4YG. S. RHS 160D; F. between 147C and 146C; pale lemon beard. Zing X Knotty Pine.
- *BREWING STORM (Margaret Beck, TB, R. 1967). Misty Hills 1968.
- BRIDE TO BE (Irene H. Silfies, R. 1968). Sdlg. 62 40. BB, 27½", EM, Y1P. Pale ivory cream self with pink cast; peach-pink beard. Cherie X Brassie.
- BRIDGET (G. A. Timbs, R. 1968). SDB, 13", E-EM, YG1F. S. slightly lighter than F., edged silver-blue, center edge down to claw; F. medium chartreuse, no markings; full bright blue beard. Warburton Am-3 X Frost Glint. (Sport of Truce).
- BRIEF ENCOUNTER (Herbert J. Spence, R. 1968). Sdlg. 62-16-4N. BB, 24", M, W1. White self; laced; orange beard. Rippling Waters X Fair Luzon.
- *BRIGHT AND BOLD (Clyde Cochran, TB, R. 1966). Region 22 1968.
- BRIGHT IDEA (Alta Brown, R. 1968). Sdlg. D 603-1. MDB, 8", E, YP4YOL. S. chrome yellow (Wilson 605); F. cadmium orange (8) with narrow border of chrome yellow; light blue beard. Veri-Gay X Lilli-Var.

- BRIGHT SHIELD (Opal Brown, R. 1968). Sdlg. 4-9D22. TB, 38", M, Y1F. S. lemon yellow (Wilson 4); F. lemon yellow (4/1); beard deeper; ruffled. Dawn Crest X 2-20C23 (Grandiflora sib x Full Dress). Brown's Sunnyhill Gardens 1968.
- BRIGHT VEIL (Tom Craig, R. 1968). Sdlg. 7D1. TB, 38", ME, Y2RV. S. rose petal and amethyst dotted and veined imperial purple especially near margins; F. creamy buff with all over veining of imperial purple or blended rosy amethyst. ((Tiffany x Los Angeles) x Port Wine) X Gene Wild. Craig 1968.
- *BROAD PACIFIC (Maynard Knopf, TB, R. 1966). Top 0' The Ridge 1968.
- BROKEN CHORD (Mrs. F. Allen Brown, R. 1968). Sdlg. 61-88-3. TB, 34", M, Y4RV. S. deep cream bordered orchid-mauve; F. orchid-mauve; ruffled and fluted; old gold beard. Henry Shaw X (Lovely Diana x Lovely Diana). HC 1967. Landsend 1968.
- *BROKER'S TIP (James Tucker, TB, R. 1966). Southern Meadows 1966.
- BROWN DOLL (Schreiner's, R. 1968). Sdlg. Y 2068-B. IB, 24", M, R1Dcm. Even shade of red with chestnut cast, intense central pumila spot of richer, velvety red. T 1191 (Oriental Glory x Inca Chief) Austrian form pumila 1-3 X Olympic Torch. Schreiner's 1968.
- *Brown Tempest (Hite, TB, R. 1965). Hite 1965.
- BROWN WINGS (Leona Mahood, R. 1968). Sdlg. 10-60. MDB, 8", M, Y1Pcm. S. cream; F. lighter cream with light brown spot. Fairy Flax X Carpathia. Mahood 1968.
- BUCK 'N WING (Helen Reynolds, R. 1968). Sdlg. 151-67. TB, 36", M-VL, Y4OR. S. golden yellow; F. red toned brown-orange, ruffled. Sass 55-548 X 60-60A (inv. Pink Giant, Revel, red sdlg., Pink Formal). El Dorado 1968.
- BUFFY (Opal Brown, R. 1968). Sdlg. 6-5C40. TB, 36-38", M, RP4YOPcm. S. orient pink; F. ivory pink, dainty fringed edge pale orange-buff (RHS 20C), hafts brushed 20C; beard 21B, deeper in throat. Rippling Waters X Grandiflora.
- *BURNING COALS (Ben Hager, TB, R. 1967). Melrose 1968.
- BURNISHED GLOW (Schreiner's, R. 1968). Sdlg. V 212-1. TB, 36", E, R5D. Metallic copper red blend self; self beard. 0-430-6 (((M801-1 (Oriental Glory x Inca Chief)) x ((M909-1 (Pretty Quadroon x Pacemaker) x (50-12 x Cordovan))) X P 455-2 ((K387-A (50-101 x (Argus Pheasant x Pacemaker) x Trim))). HC 1967. Schreiner's 1968.
- BUSH FIRE (Dr. G. B. Loveridge, R. 1968). Sdlg. L-2. Spuria, 42", E, 05Dcm. S. brown; F. brown with yellow veining. Ferguson's 62-11 X 63-14.
- BUTTERMILK FAIRY (Marjorie Brummitt, R. 1968). Sdlg. 154/1. Pacific Coast, 15", M, Y1Fcm. S. straw yellow; F. same with maroon stripes. Sdlg. X Sdlg.
- BUTTERSCOTCH CREAM (Beatrice Warburton, R. 1968). Sdlg. 69I-3. SDB, 14", E-L, Y5F. S. butterscotch tan-yellow; F. tan-yellow, white blaze (RHS 161B); violet-blue beard. Blueberry Muffins X Scot Cream.
- *CALIENTE (Walt Luihn, TB, R. 1967). Mission Bell 1968.
- CALIFA KABANG (Herbert Graves, R. 1968). Sdlg. 69-64-2. SDB-

- Aril, 12-14", M, Y1F. Deep bright yellow self; yellow beard. Brassie X (Imam Salah x MD-GR 121-12).
- CANDALARIA (Schreiner's, R. 1968). Sdlg. T 1420-1. TB, 37", ML, R05D. S. rich orange-yellow blended buff-russet; F. same overlaid bronze-amber. Olympic Torch X Brasilia. HC 1967. Schreiner's 1968.
- *CANDY PINK (Tim Craig, TB, R. 1966). Craig 1966.
- CANDY STICK (Cora May Pickard, R. 1968). Sdlg. C-5616. TB, 34", ML, O1Pcm. Pink self; conspicuous markings. Irish Charmer X (June Meredith x May Hall). HC 1968.
- *CAP AND GOWN (Hite, TB, R. 1965). Hite 1965.
- CAPE IVORY (Robert Innes, R. 1968). Sdlg. 67-1. TB, 38", EML, Y3P. S. rich ivory, canary yellow (Wilson 2/4); F. lighter ivory with hafts of clean canary yellow (2/2); deep whorls of heavy ruffling; beard canary yellow with lighter tip. Whole Cloth X Glamorous.
- CAPRI GIRL (C. J. Blyth, R. 1968). Spuria, 42", M, V1cm. Lavender self with gold blaze on F. Unknown parentage.
- CAPTAIN JACK (Raymond Thomas, R. 1968). Sdlg. 67-2. TB, 36", M-L, RV1F. Strong reddish lavender (Nickerson 10P 4/10) self; laced and ruffled; blue beard. Granada X Rippling Waters.
- CARILLON BELLES (D. Steve Varner, R. 1968). Sdlg. 695. TB, 37", EML, YO4RVcm. S. RHS 23C; F. blending of 80C and 74D with 1/4" edging of 23C; beard 23A. 2130 (Whole Cloth x Lavendula) X 225 ((146 (Top Flight x Yesteryear) x Branch 59-22)).
- *CARILLON FESTIVAL (Opal Brown, TB, R. 1967). Brown's Sunnyhill Gardens 1968.
- CARNABY STREET (Helen Reynolds, R. 1968). Sdlg. 9-67. TB, 30", E, W2Vcm. S. white streaked blue-violet; F. white streaked and marbled blue-violet. Tea Apron X 57-179A (lemon sdlg. from Red Chieftain). El Dorado 1968.
- *CARNIVAL OF ROSES (Vallette, TB, R. 1964). Come 'N' Look 1968.
- *CAROLINA DELIGHT (Loleta Powell, TB, R. 1967). Powell's 1968.
- CAROLINA DUSK (Loleta Powell, R. 1968). Sdlg. 66-90. TB, 36", M-L, N1. Black self; gold beard. Licorice Stick X Tar Heel.
- *CAROLINA HOPE (Loleta Powell, TB, R. 1967). Powell's 1968.
- *CAROLINA POLKA (Loleta Powell, TB, R. 1967). Powell's 1968.
- CARO NOME (Bob Brown, R. 1968). Sdlg. 67-67. TB, 36", M, V1F. Campanula violet (Wilson 37/1) self; medium ruffling; beard tangerine tipped blue. 6350 ((60-4 (Hall 51-28 x Palomino) x Bright Starlight)) X 63D2 (Oriental Pearl x June Meredith). HC 1968.
- *CATALDO (J. W. Nelson, TB, R. 1967). Cooley 1968.
- *CELEBRATION (Joseph Ghio, TB, R. 1966). Bay View 1968.
- *CELESTIAL DAWN (Eugene Buckles, TB, R. 1967). Buckles 1968.
- CELESTIAL RUFFLES (Bion Tolman, R. 1968). Sdlg. 63-69-1. BB, 20", M, W1. White self; ruffled and fluted. (El Grande Azul x Starcrossed) X Celestial Snow. HC 1967. Tell 1968.

- *CENTENNIAL GOLD (O. A. Kummer, TB, R. 1967). Avonbank 1968.
- CENTER STAGE (Joseph Ghio, R. 1968). Sdlg. 65-170I. TB, 38", M, V1L. Lilac-lavender self with gold shoulders; yellow beard. Claudia Rene X Moon River.
- CHABACANO (Tom Craig, R. 1968). Sdlg. 7P24. TB re., 34", E & re., O1P. S. safrano pink; F. blended apricot especially toward heart. Summerose X sib. Craig 1968.
- CHA-CHA (R. H. Bailey, R. 1968). Sdlg. 6-68. TB, 36", M-L, W2V. White ground plicata with 1/4" violet purple around edges; very ruffled. (Snow Crystal x Blue Shimmer) X Dancers Veil.
- CHANETTA (Czarina Brown, R. 1968). Sdlg. E-9-1. TB, 32", M, Y1P. Mimosa yellow self (Wilson 602/1); ruffled; buttercup yellow beard. C-16-1 (Hinkle sdlg. from pink breeding) x Fleeta) X Gay Princess. HC 1968.
- CHARCOAL (Gordon Plough, R. 1968). Sdlg. 64-13-2. TB, 34", EM, V1DD. S. deep violet with black cast; F. deep black-violet; beard deep blackish brown tipped dark violet. Swahili X Ecstatic Night.
- CHARMED CIRCLE (Keith Keppel, R. 1968). Sdlg. 64-42A. TB, 35", M, W2VD. White ground plicata with strong dark violet markings (M&P 44-J-12); beard smalt blue (43-D-11). 61-49H (Happy Meeting x Rococo) X 61-48D (Full Circle x Rococo). HC 1968.
- CHARM SONG (Alta Brown, R. 1968). Sdlg. M 1057. IB, 18", M, V1F. Medium violet self (Wilson 735/2) with touch of deeper violet at tip of beard; ruffled. TB 57-28-2 (Enchanted Pearl x Beechleaf) X Pastel Petite.
- CHARM YELLOW (Mrs. D. Hansford, R. 1968). Siberica, 36", L, Y1cm. Aureolin yellow self with small black spots on signal. Charm of Finches X sdlg. of same.
- CHARTREUSE MISS (Mattie Reinhardt, R. 1968). Sdlg. 66-33. TB, 36", M, GY1L. Yellow-chartreuse self with greenish chartreuse at haft; green-chartreuse beard. Ruffled Heiress X 63-44 (57-72 x Fleeta). HC 1968.
- CHEERFUL HEART (Wilma Greenlee, R. 1968). Sdlg. 67-11. SDB, 12", E, B1Pcm. Pale blue self with big pure green spot on F; brilliant deep blue beard. (White Mite x self) X Jet Black. Greenlee 1968.
- CHEERFULNESS (Opal Brown, R. 1968). Sdlg. 4-3C3. BB, 26-28", M, Y5cm. S. coral pink blending to yellow at edges; F. yellow, white center area, amber hafts; ruffled and flared; bright red beard. 2-23A3 (inv. Poet's Dream, Golden Garland and pink sdlgs.) X Marilyn C. Brown's Sunnyhill Gardens 1968.
- CHERRY ACCENT (Mrs. J. R. Hamblen, R. 1968). Sdlg. H63-23A. TB, 34", M-L, R1P. Light pink self with blue influence; deeper pink beard. Water's P-61 (((pink sdlg. x Pink Enchantment) x Pink Enchantment)) x May Hall))) X (Fair Luzon x Garden Party). HC 1968.
- CHERRY JUBILEE (Vernon Wood, R. 1968). Sdlg. 66-40. TB, 36", M, W1. White self; red-tangerine beard. ((Mary Randall x May Hall) x Frilly Fringes)) X Rippling Waters.
- *CHERUB CHOIR (Glenn Corlew, TB, R. 1966). Cherry Lane 1968.

- CHICAGO (James Marsh, R. 1968). Sdlg. 67-42. TB, 38", M, RV1P. Orchid self (RHS 75B). Orchid Dancer X pink sdlg.
- *CHIEF MOSES (Gordon Plough, TB, R. 1967). Eden Road 1968.
- *CHIEF WASHAKIE (Blackley, TB, R. 1965). Come 'N' Look 1968.
- CHRISTOPHER (Mrs. D. Hansford, R. 1968). Siberica, 36", L, RV1. Red-purple self. (Hybrid Bulleyana x Chrysographes) X sdlg.
- CIMARRON STRIP (Chet Tompkins, R. 1968). Sdlg. 64-51. TB, 38", ML, 05. S. blend of pink, orange and flame red over apricot chamois; F. blended orange-cerise and cardinal and fuchsia reds. Camelot Rose X ((Ice 'N' Lime x Clarion Call) x (Clarion Call x Kin-na-zin)). Fleur de Lis 1968.
- CIRCLE WALTZ (Delora Smith, R. 1968). Sdlg. 67-20-2. TB, 32", M-VL, B5. Azure blue overlaid cobalt, deepening at edges; all edges deeply fluted; heart of flower and styles azure blue; some lace; cream beard. (May Cloud x Jane Phillips) X (May Cloud x sdlg. ((Lavender Mist x Chivalry) x Chantilly)).
- CITRON CREME (Schreiner's, R. 1968). Sdlg. Y 2000 A. TB, 38", L, Y1P. Cream colored self with lemon ice cast, no borders or veins. Christmas Angel X R 107-AA ((M 261-6 (Lavenesque x ?) x Giant Rose)). Schreiner's 1968.
- *CITRUS MIST (Gordon Plough, TB, R. 1967). Eden Road 1968.
- *CLAREMONT CLASSIC (Babson, TB, R. 1965). Melrose 1968.
- CLASSIC LADY (Luella Noyd, R. 1968). Sdlg. N65-61-66C. TB, 34", M, RV1Pcm. S. orchid, pink at base, darker at edge; F. orchid, pink in center; coral beard. Dawn Flight X Garden Party.
- CLEAR POND (F. W. Cassebeer, R. 1968). Sdlg. 936. Siberian, 30", M, VB1F. Methyl violet (39/1) self shading deeper toward haft and paler at tip of petals; light stylearms of same color. White Swirl X unknown.
- CLEVE DODGE (Dr. Currier McEwen, R. 1968). Sdlg. 64/67-10. Siberian diploid, 26", EM-LM, BV1D. S. between RHS 88A and 89A; F. same, velvet texture; styles same. 61/Cas 2 (Violet Flare x unknown) X unknown.
- CLIQUE (Keith Keppel, R. 1968). Sdlg. 64-15G. IB, 18", M, W2V. White ground plicata with narrow stitched edging of violet (M&P 42-H-10); white beard tipped yellow. 61-48B (Full Circle x Rococo) X Goett 4D-1 (Knotty Pine x Pat's Pal).
- CLIVE (Hazel McCaffrey, R. 1968). Sdlg. 105. TB, 40", M, Y1F. Deep yellow self. Golden Hind X Golden Hind.
- *CLOUD CREST (Bennett Jones, TB, R. 1967). Jones 1968.
- *COASTAL WATERS (Gordon Plough, TB, R. 1967). Eden Road 1968.
- COLD WAVE (Tom Craig, R. 1968). Sdlg. 7CW-1. TB, 38", M, V1L. Plumbago gray to heliotrope gray self. Celestial Snow X Curl d Cloud.
- COLOR CHARM (Tom Craig, R. 1968). Sdlg. 7B40. TB, 30", M, Y4Rcm. S. narcissus; F. rose-pink, edged gold, blazed lilac. Gypsy Lullaby X Pipes of Pan. Craig 1968.
- COLOR CONTRAST (Tom Craig, R. 1968). Sdlg. 7B79. TB, 36", M, Y04ORD. S. buff; F. mahogany-black. Toll Gate X Edenite.

- COLOROYAL (Tom Craig, R. 1968). Sdlg. 7C39. TB, 36", M, B1D. Regal blue self. (Frieda's Favorite x Valhalla or sib) X Allegiance. Craig 1968.
- *COLOUR BRIGHT (Jean Stevens, SDB, R. 1966). Wanganui 1968.
- *COLUMBA (Tim Craig, IB, R. 1966). Craig 1966.
- *COMING UP (Richard Rosenfels, IB, R. 1967). Old Brook 1968.
- *CONRAD (Tim Craig, IB, R. 1966). Craig 1966.
- *CONSTANT LOVE (Alta Brown, BB, R. 1966). Brown's Iris Garden 1968.
- CONTRABAND DAYS (Marvin Granger, R. 1968). Sdlg. 65-11. La., 36-38", M, V4RV. S. white with wide deep purplish pink flush on border and down midrib (Nickerson 2.5 RP 6/10); F. strong reddish purple (2.5 RP 4/10); white styles with base and midrib green; claws strong reddish purple. 60-3 (Bayou Sunset x Gay Deceiver) X Wheelhorse. HC 1968. Granger 1968.
- *COOKIES (B. Warburton, SDB, R. 1967). Warburton and Old Brook 1968.
- *COOL (Luella Noyd, IB, R. 1967). Noyd 1968.
- COPACABANA (Dr. G. B. Loveridge, R. 1968). Sdlg. 62-17. BB, 26", L, Y1F. Golden yellow self; orange beard. Bingham X Atropurpurea.
- COPPER STRIKE (Jean Witt for Stanley Street, hybridizer, R. 1968). Sdlg. B79B, MTB, 23", M, 05L. Light copper self; yellow-orange beard. Eversweet X Zingara.
- *COPPER VALLEY (Harry Hite, TB, R. 1967). Hite 1968.
- CORAL GLOW (Opal Brown, R. 1968). Sdlg. 4-13L. TB, 36", M, OP3YOP. S. between peach and Chinese coral (RHS 29D-32D); F. ivory, edged Egyptian buff (19C-19D), hafts brushed same; underside falls same; mandarin red (40C) beard. L-1A2 (inv. pink breeding) X Arctic Flame.
- *CORAL ICE (Gordon Plough, TB, R. 1967). Eden Road 1968.
- *CORDUROY AND LACE (Luella Noyd, TB, R. 1966). Noyd 1968.
- COTTON PICKER (Samuel Capetillo, R. 1968). Sdlg. 4-23. TB, 34-36", M, W1Y. White self; warm white toward center; light yellow beard tipped white. Blue Intensity X Pink Lace.
- COUNTRY GIRL (Herbert Spence, R. 1968). Sdlg. 62-16-7A. IB, 32", M, RV4OR. S. RHS 78C; F. RHS 77D, slightly darker on edges, laced; beard 33A. Rippling Waters X Fair Luzon. HC 1968.
- COUNTRY MUSIC (D. C. Nearpass, R. 1968). Sdlg. 4-66-17. TB, 34", L, ORP4VP. S. orient pink (RHS 36B); F. plum purple (80C) fading to 84D; tangerine beard; ruffled. 1-63-16 (Enchanted Violet x Emma Cook) X Pretty Carol. HC 1968.
- *COUNTRY POET (Les Peterson, TB, R. 1967). Tell's 1968.
- CRANBERRY VELVET (Bonnie Dunbar, R. 1968). Sdlg. 104-67-7. TB, 40", M, VR3FD. S. full rich wine red; F. deep rich wine red edged narrowly full wine red; orange-brown beard; ruffled. Esther Fay X Black Swan.
- CREAM BUTTERFLY (Irene Silfies, R. 1968). Sdlg. 6236. SDB, 12", E-L, Y1Pcm. Deep cream with deep smoky violet markings radiating from cream tipped beard. Green Halo X Warburton 305.

- CREAM RHAPSODY (C. J. Blyth, R. 1968). Sdlg. 67-18. TB, 40", M, Y1P. Cream self; green midribs; ruffled; cream beard. L'lita X Whole Cloth. Aust. HC 1967.
- *CREOLE BABY (Grace Guenther, SDB, R. 1967). Maple Tree 1968.
- CRIMSON CUSHION (Marjorie Brummitt, R. 1968). Sdlg. 104/2. Pacific Coast, 12", M, R3. S. light crimson; F. brownish crimson. Sdlg. X sdlg.
- #CRINKLED GLORY (R. Schreiner, TB, R. 1956). Name released.
- CROWN (Beatrice Warburton, R. 1968). Sdlg. 67IJ-1. SDB, 14", E-L, YG1F. Yellow-green (RHS 154C) self with orange-green halo markings (YG 151A); ruffled F.; beard 92B to C, frosty orange tips. 46G (Snow Flurry x I. pumila sdlg. Warb. AM-5: April Morn x ?) X 9G-1 ((sib to Blue Denim x C-309 Warb. (probably blue pum. AM-3 x Spanish Peaks)).
- CRYSTAL VISION (H. W. Neubert, R. 1968). Sdlg. 116-65A. TB, 37", E, W1. White self; lemon beard tipped white. Fluted Haven X Celestial Snow.
- CUBAN BELLE (Beryl Carlson for G. A. Carlson, R. 1968). Sdlg. A64-5-6. TB, 36", ML, Y4Vcm. S. aureolin yellow (Wilson 3/1), ruffled; F. aster violet (38/2) with narrow blended border of buff; olive-tan hafts; Indian yellow (6/1) beard. ((Thotmes III x Bonnie Dundee) x Melodrama)) X ((Mary Randall x Briar Rose) x (Blue Rhythm x Bold Pageant)).
- *CURLLEW (J. D. Taylor, IB, R. 1967). Orpington Irises 1968.
- *CYCLONE (Eva Smith, TB, R. 1967). Smith's Iris Gardens 1968.
- DA CAPO (Dr. Lloyd Zurbrigg, R. 1968). Sdlg. 65-16-AAA. TB re., 34", M & re., W2RV. S. white heavily overlaid pansy purple (RHS 033/2); F. white bordered slightly deeper pansy purple; bronze beard. Replicata X Double Majesty.
- DACHE MODEL (Earl Roberts, R. 1968). Sdlg. 68R17. SDB, 12", M-L, O1P. S. light salmon pink; F. slightly darker; tangerine beard. Lillipinkput X canary yellow sdlg. 65R15, sib to Lenna M pinks. HC 1968.
- *DAINTY DOVE (Alta Brown, MTB, R. 1967). Brown's Iris Garden 1968.
- DANCING EYES (David Sindt, R. 1968). Sdlg. G702. SDB, 11", M, Y4Wcm. S. light yellow; F. creamy white with heavy brown halo pattern around creamy yellow beard blending to yellow-brown in haft; ruffled. Green Spot X unknown.
- DANCING GOLD (Jean Witt for M. Brizendine, hybridizer, R. 1968). MTB, 21", M, Y3cm. S. full yellow, erect revealing yellow stylearms; F. yellow, white around orange-yellow beard. Meadow Lark X Pixie.
- *DANCING SUNBEAM (Dorothy Palmer, TB, R. 1967). Palmer 1968.
- *DANI GRACE (Alean Kemp, MTB, R. 1967). Kemp 1968.
- DARK AGES (Arnold Schliefert, R. 1968). Sdlg. 61-31M. TB, 32", M, R1DD. Very dark red self. Edenite X Black Swan. HC 1968.
- *DARK BRILLIANCE (Tom Craig, TB, R. 1963). Craig 1968.
- DARK DREAM (Gordon Plough, R. 1968). Sdlg. 62-165-6. TB, 33", EM, BV3D. S. victoria violet (Wilson 738/3); F. much darker with clean blackish-brown hafts; beard same as F, tipped

mustard. 60-80-20 (Grand Alliance sib) X 60-96-25 (Tistops x Allegiance).

*DARK SPARK (David Sindt, SDB, R. 1967). Riverdale 1968.

DARK TASMAN (Mrs. Lucy Delany, R. 1968). Sdlg. 66-159. SDB, 10", M, B1Dcm. Deep rich blue self, darker around wide blue beard. Green Spot X Little Shadow.

*DASHING DEB (Alta Brown, BB, R. 1966). Brown's Iris Garden 1968.

DAWN BLUSH (Marvin Olson, R. 1968). Sdlg. 66-6B. TB, 34", M, R1P. Dawn pink self (Wilson 523/2) with slight touch of blue; coral beard; ruffled. Esther Fay X Liltng Melody. HC 1967.

*DAWN'S HARBINGER (Rosenfels, TB, R. 1967). Come 'N' Look 1968.

*DAY'S DELIGHT (Edward Christensen, TB, R. 1966). Eden Road 1968.

DAWN'S PROMISE (Eugene Buckles, R. 1968). Sdlg. 66-22. TB, 34", M, O1L. Apricot-orange self. Apricot Lustre X Dawn Crest. HC 1968.

DAY'S PROSPECTS (Albert Motsch, R. 1968). BB, 25-28", E-M, RV3FD. S. several shades lighter than F; F. dahlia purple (Wilson 931/2) with red cast in sun; beard slightly greenish yellow. Cretica X Maroon Capers.

*DEB (Tim Craig, IB, R. 1966). Craig 1966.

DECOLLETAGE (Ben Hager, R. 1968). Sdlg. T1951A. TB, 40", EM, YP2RV. S. cream peppered orchid-rose; F. cream edged rose mulberry. Memphis Lass X (Yucca x Irma Melrose).

DECORETTE (Delora Smith, R. 1968). Sdlg. 67-28-1. TB, 32", M-L, O1Pcm. S. pale cream-pink; F. pale baby ribbon pink; dark salmon peppered haft, overwash of salmon-rose; salmon beard. From inv. blue and white x pink breeding X sdlg. inv. New Adventure, Surrender and pink sib to Surrender.

DELICATE LASS (Hattie MacLean for C. G. MacLean, R. 1968). Sdlg. M66-F17. TB, 40", ML, VB1P. Pale wisteria blue (Wilson 640/3) self; ruffled, silky, fragrant; styles slightly deeper; orange beard, tipped white. White Peacock X So Sweet.

*DELTA KING (Ben Hager, Louisiana, R. 1967). Melrose 1968.

*DELTA STAR (Marvin Granger, Louisiana, R. 1966). Granger 1968.

*DESEREE (Mrs. E. Miller, TB, R. 1964). Miller 1968.

DESERT CHARM (W. B. Schortman, R. 1968). Sdlg. 96829. TB, 36", M-L, Y04YP2Y0. S. tan; F. cream bordered tan with some tan markings; yellow beard. Wild Ginger X plic sdlg.

*DEVILISH (Tom Craig, TB, R: 1966). Craig 1966.

*DEVIL'S DUNGEON (Frank Chowning, La., R. 1966). University Hills 1966.

*DIFFERENT (Tim Craig, Oncobred, R. 1966). Craig 1966.

DILETTANTE (Jean Witt for Frances Maloney, hybridizer, R. 1968). MTB, 23", E TB, RV1L. Light orchid-pink self. (Possibly Pewee x Desert Quail) X unknown.

DOCTOR SUNSHINE (David Ladd, R. 1968). Sdlg. 20-2. TB, 36", E, Y3Fcm. S. bright yellow; F. rich yellow, pale yellow spot at end of orange beard; distinct yellow stripe extending downward from beard. Palomino X Techny Chimes.

- *DOLL APRON (John Goett, SDB, R. 1967). Old Brook and Goett 1968.
- DOLL HOUSE (Alta Brown, R. 1968). Sdlg. D 712-6. MDB, 7", E, V3Fcm. S. heliotrope (Wilson 636); F. amethyst (35) with edging of S; wisteria blue beard. Green Halo X collected pumila H. 37 orchid.
- DON CLIPPINGER (David Ladd, R. 1968). Sdlg. 33-12. TB, 36", M, O5Dcm. S. wavy light brown, crinkled on margins; F. light brown, crinkled margins, violet stripe extending downward from orange beard; short bearded horns. Horned Skylark X Happy Birthday.
- DOROTHY MAE (Edwin F. Jaeger, R. 1968). Sdlg. 66-3. BB, 25", M, W2RV. Rich purple on white ground; ruffled; light yellow beard. Carolina Jane X Baria. HC 1968.
- *DOUBLE DECKER (Tim Craig, TB, R. 1966). Craig 1966.
- DOUBLE HUE (D. O. Rawlins, R. 1968). Sdlg. 65-2. TB, 34", M, YL4VL. S. light yellow; F. lavender; laced and ruffled; yellow beard. Butterscotch Kiss X 63-1 ((Snow Flurry x Carabella) x Lavender and Gold Lace x Accent)).
- *DOVE WINGS (Earl Roberts, SDB, R. 1967). Roberts and Moldovan 1968.
- DRAB DREAM (Charles Wm. Voris, R. 1968). Sdlg. 66/10. TB, 36", M, Y1Dcm. Olive drab self (yellow-brown) flecked brown; brown beard. Lula Marguerite X Colorama.
- DRADY'S GIRL (Leona Mahood, R. 1968). Sdlg. 6512. MTB, 19", L, W4RVcm. S. pure white; F. purple on outer portion, white at base, patterned with purple lines; lemon beard. (Drady x dwarf) X unknown. Mahood 1968.
- DRAGON FIRE (Mrs. John Hardy, R. 1968). Sdlg. 67-B-2. TB, 40", M, RV1D. Deep red-purple self; heart and shading on hafts gold; orange-brown beard. Valimar X Brigadoon.
- DREAM SPINNER (George Shoop, R. 1968). Sdlg. 63-18-2. TB, 36", M, Y4Wcm. S. canary yellow; F. white with yellow rim; tangerine-pink beard. Gay Whisper X 59-6-2. HC 1967. Shoop 1968.
- *DRESDEN CANDLEGLOW (Reath, IB, R. 1964). Schreiner's 1968.
- DRESS SUIT (Herbert Spence, R. 1968). Sdlg. 61-1-4A. TB, 32", M, B3FD. S. medium blue; F. dark violet-blue; self beard. Whole Cloth X Dark Boatman. HC 1968. Tell 1968.
- *DRIFTING SANDS (Z. G. Benson, TB, R. 1967). Benson 1968.
- DULCEY (C. W. Tompkins, R. 1968). Sdlg. 65-51A. TB, 38", M-VL, O5L. Flesh pink and apricot chamois blend. Camelot Rose X ((Ice 'N' Lime x Clarion Call) x (Clarion Call x Kin-na-zin)) Fleur de Lis 1968.
- DUSKY BLUEBEARD (Alta Brown, R. 1968). Sdlg. M 1166-7. SDB, 11", E, GY4ODcm. S. greenish buff; F. brown with 1/4" border color of S; bright blue beard. M 150-2: brown (Smoothy x D 1-9 yellow, April Morn sdlg.) X Arrangement.
- EARLY BLUEBIRD (Dr. Currier McEwen, R. 1968). Sdlg. S60/7-7. Siberian, 32", E-L, B1Dcm. Blue (RHS 89C) self with yellow-black-white blaze of medium size on F. Tycoon X Placid Waters.
- EARLY EDITION (Keith Keppel, R. 1968). Sdlg. 64-16C. IB, 18", EM, W2VF. S. white ground with medium violet (M&P 42-I-10)

- sanding half way to center; F. white, medium violet hafts and very narrow plicata edge; white beard tipped yellow. 61-48B (Full Circle x Rococo) X Zip.
- EASTER GLORY (Dr. Lloyd Zurbrigg, R. 1968). Sdlg. 65-40-A. TB, 36", ML, Y4RVL. S. bright yellow; F. light orchid with deeper flush; bright yellow halo around bright yellow beard. Siam X Cook yellow and blue sdlg. (Cook 10260 x Cook 8159).
- ECHELON (Tell Muhlestein, R. 1968). BB, 24", M-L, V1F. Royal violet or midnight-blue self including beard. Allegiance X (Mary McClellan x Sierra Skies). Tell 1968.
- EDENGLO (Dr. Lloyd Zurbrigg, R. 1968). Sdlg. 64-10. TB & re., 34", M & re., R3D. S. 10/30-3 with darker veining and a touch of sooty overlay; F. 10/30 with sooty overlay; small amount of white around dark bronzy-red beard. Edenite X August Gold.
- *EGYPTIAN PRINCE (Cora May Pickard, TB, R. 1967). Pickard 1968.
- *EIGER (Tim Craig, TB, R. 1966). Craig 1966.
- *ELEGANT CHARM (R. Brown, TB, R. 1967). Brown's Iris Gdn. 1968.
- ELEGANT FARMER (Larry Gaulter, R. 1968). Sdlg. 62-31D. TB, 36", M, Y5L. S. blended soft tan; F. same with bluish blaze; orange beard which ends with thin white dart. Claudia Rene X Mademoiselle. Cooley 1968.
- ELEGANT LADY (Dr. C. C. Hall, R. 1968). Sdlg. Q521. TB, 40", M, B5P. Pale grey-blue self with signal patch and fine pencil lines on F. Mary McClellan X Blue Gate.
- *ELEGANT TRY (Dorothy Guild, MTB, R. 1966). Guild 1968.
- ELIZABETH'S BIRTHDAY (Mrs. D. Hansford, R. 1968). Siberica, 36", W4YP. S. white; F. cream. Charm of Finches X Charm of Finches.
- *ELMA BELLE (M. Price, TB, R. 1965). Cassebeer & Old Brook 1968.
- ELOQUENT (Joseph Ghio, R. 1968). Sdlg. 64-25X. TB, 33", EM, W1B. Blue-white self; blue beard. High Above X (((Frosted Starlight x (Black Satin x Spanish Peaks)) x Nina's Delight sib))).
- EMINENCE (Rex Brown, R. 1968). Sdlg. 64-144-11. TB, 36", ML, V1L. S. medium violet (Wilson 36/2), darker midrib; F. tint lighter than S; ruffled; lavender beard. Blue Olympics sib X Bon Vivant.
- EMMA LAW (W. P. Law, R. 1968). Sdlg. F/4. TB, 38", EM, W4VB. S. white, faintly tinged blue; F. deep violet-blue; light yellow beard. Allegiance X Whole Cloth.
- EMMA LOUISA (Eugene Buckles, R. 1968). Sdlg. 65-1. TB, 30", EM, B4RV. S. light lavender-blue; F. red plum. Gypsy Lullaby X Memphis Lass. Will rebloom. HC 1966.
- ENDEARING (Jeannette Nelson, R. 1968). Sdlg. 65-54-3. TB, 36", M, OR4W. S. pale pink (Wilson 619/3); F. white with pale pink on haft and around edges; pink beard. 68-37-4 X Esther Fay.
- ESTHER RAWLINS (D. O. Rawlins, R. 1968). Sdlg. 64-6. TB, 34", M, W1W. White self; heavily ruffled; yellow beard. Snow Flurry X 62-4 (Snow Flurry x Illinois).
- *ESTHER, THE QUEEN (Eugene Hunt, Onco-regaliabred, R. 1967). Tell 1968.

- ETERNAL JOY (Marvin Olson, R. 1968). Sdlg. 66-5C. TB, 34", M, W4VR. S. white; F. Persian rose (Wilson 628-2); ruffled. Rippling Waters X Gypsy Lullaby. HC 1968.
- *EVA'S PRIDE (E & A Watkins, TB, R. 1966). Old Brook 1968.
- EVENING BREEZE (Opal Brown, R. 1968). Sdlg. 4-13T4. TB, 36", M-L, V1L. Violet (Wilson 36/2) self; ruffled; beard same. L-4A1 (Poet's Dream x Golden Garland) X L-5C10 ((Golden Valley x Gosper) x Poet's Dream)). Brown's Sunnyhill Gardens 1968.
- *EXOTIC WINGS (Gordon Plough, TB, R. 1967). Eden Road 1968.
- EXULTATION (Rex Brown, R. 1968). Sdlg. 64-70-6. TB, 32", M, RV3LP. S. orchid-pink (Wilson 633/1), lacy; F. lighter (633/3) with narrow edging color of S; heavily laced; saturn red beard. Point Lace X Arctic Flame.
- FAIRY BALLET (Mrs. Philip Sarro, R. 1968). Sdlg. S-64-6. SDB, 13", M, RV3PFcm. S. orchid; F. red-violet with 1/4" border color of S; lavender beard. Emma Frances X (Happy Birthday x R. V. Pum).
- *FAIRY GOBLIN (Doris Foster, Aril median, R. 1967). Tell 1968.
- FALL CREAM (Hazel McCaffrey, R. 1968). Sdlg. 128. BB, 21", M, Y1F. Yellow self. Cream Queen X Fall Gold.
- FANTAISIE (Jean Cayeux, R. 1968). Sdlg. Nr 61 120 A. TB, 36", E, W4V. S. pure white; F. soft lilac. Lavanisque X Whole Cloth.
- *FANTASY LAND (H. W. Neubert, TB, R. 1967). Neubert 1968.
- *FARAWAY DREAM (Mrs. John Hardy, I. innominata, R. 1966). Siskiyou 1968.
- FAR CORNERS (Steve Moldovan, R. 1968). Sdlg. 66-35A. TB, 34", ML, OY1F. Old gold self, clean brown hafts; deeper brown beard; ruffled. Gypsy Jewels X Fay 62-41 (Chinese Coral x Prairie Blaze).
- FARMER'S DAUGHTER (Herbert Spence, R. 1968). Sdlg. 64-29-7B. TB, 34", M, V1P. Pink self with blue influence; tangerine beard. 62-16-4D (Rippling Waters x Fair Luzon) X Court Ballet.
- FASHION DRAMA (Lucy Delany, R. 1968). Sdlg. 66-247. IB, 20", M, Y4VPcm. S. chartreuse, violet midrib; F. violet, brown-red at hafts; bright orange beard. (Fashion Lady x Melodrama) X Whole Cloth.
- *FASHION FARE (R. Brown, TB, R. 1966). Brown's Iris Gdn. 1968.
- FAUSTINA WALKER (Gordon Plough, R. 1968). Sdlg. 65-25-22. TB, 30", ML, B1P. Pale blue self (between colbalt Wilson 44/3 and spectrum blue 45/4); beard cool white to yellow deep in throat. Winter Olympics X Heavenly Days.
- FAVORITE THINGS (Mrs. John Hardy, R. 1968). Sdlg. 68-B-1. TB, 40", M, W4RP. S. white; F. dark rose-pink; red beard. From two pink amoena lines inv. Ranger, Pink Cameo, sib to Salmon Shell, Pink Fulfillment, China Gate, Burgundy Rose, Lavender Mist, etc.
- FESTIVE SPIRIT (Gordon Plough, R. 1968). Sdlg. 62-134-13. TB, 30", EM, RV1Lcm. S. mauve (little darker than Wilson 633); F. near white area around beard, blending to mauve; ruffled;

- white beard, deeper in throat. 59-266-26 (Bon Vivant sib) X 59-99-30 (Imperial Amethyst x 55-54-5: Kachina Doll sib).
- FIESTA TANGO (Raymond Hiser, R. 1968). Sdlg. 1-66-68. TB, 32", M-L, RV5L. Blending from light reddish purple to strong reddish purple (Nickerson 10P 6/9 to 10P 5/10); yellow beard. Orchid Jewel X Crinkled Beauty.
- FINE PRINT (Keith Keppel, R. 1968). Sdlg. 63-14A. SDB, 14 3/4", EML, W2VBP. S. white ground almost completely suffused pale lavender-blue (M&P 42-A-3); F. white with light lavender-blue haft and faint edging; light ruffling; white beard. Preamble X Knotty Pine. HC 1968. Keppel 1968.
- *FINDERS KEEPERS (Chowning, La-foliosa, R. 1961). University Hills 1966.
- FINERY (Luella Noyd, R. 1968). Sdlg. N65-9-4. TB, 34", M, 01Pcm. S. pink edged apricot; F. same, green line up back, some delicate yellow ocre at haft; tangerine beard; slightly lacy, styles pink with lacy apricot tip. Chinese Coral X Skookum.
- *FIRST NIGHT (Richard Rosenfels, SDB, R. 1967). Old Brook 1968.
- *FLAME AND SAND (Gerhard Carlson, TB, R. 1967). Eden Road 1968.
- FLAN (Tom Craig, R. 1968). Sdlg. 7-42-52B.C. TB, 36", M, Y1P. Pale lemon yellow self. Melodrama X Full Dress.
- *FLARETTE (Gordon Plough, IB, R. 1967). Eden Road 1968.
- FLARING PINK (William Meyer, R. 1968). TB, 36", M, 01P. Medium flamingo pink self; tangerine beard. ((Tell 50-6 x Tell 51-13, involved pink breeding) x (Lapham C 48: Bonny x Fore-runner) x Pink Enchantment)) X Lynn Hall. Tell 1968.
- FLASH LIGHTNING (Steve Moldovan, R. 1968). Sdlg. 67-30B. TB, 38", ML, Y1Fcm. S. bright gold, smoothly flushed brown at base; ruffled and laced; F. bright gold, smooth brown hafts; bright red beard. Roman Villa X Saffron Robe.
- *FLEUR ADORE (Luella Noyd, TB, R. 1967). Noyd 1968.
- *FLIGHT OF ANGELS (Collie Terrell, TB, R. 1967). Melrose 1968.
- FLOWER POWER (Gordon Plough, R. 1968). Sdlg. 62-174-5. TB, 36", EML, 04V. S. lighter than peach (Wilson 512/3) and a trifle pinker; F. closest to royal purple (834/1), some markings next to beard; blue beard with each hair tipped apricot (609). 60-102-30 (inv. Gaylord, Golden Eagle, Lotte Lembrich, Pink Cameo, Tally Ho, Whole Cloth, Loomis pink sdlg.) X 60-97-8.
- *FLUTED PEARL (Mrs. E. Miller, TB, R. 1964). Miller 1968.
- FOCAL POINT (William Newhard, R. 1968). Sdlg. 534. TB, 36", EML, Y4VBcm. S. chrome yellow (RHS 160D); F. violet-blue (RHS 97D), rimed RHS 160A; yellow beard. Melodrama X Wayward Wind.
- FOGGY DEW (Keith Keppel, R. 1968). Sdlg. 64-37Q. TB, 38", M, W2VY. S. pastel blended greyed cream (M&P 19-B-1) and lavender (43-B-2); F. white ground, wide soft violet border with darker plicata markings (42-H-8 to 46-L-8); white beard tipped yellow. Siva Siva X Diplomacy. HC 1968.
- #FOOTLIGHTS (Rundlett, TB, R. 1953). Name released to Hager.
- FOOTLIGHTS (Ben Hager, R. 1968). Sdlg. D1991A. MDB, 8", VE, Y3OY. S. medium yellow; F. deep orange-yellow. Fashion Lady X Orange Glint.

- FOOTNOTE (Keith Keppel, R. 1968). Sdlg. 63-14C. SDB, 13", ML, V3PD. S. greyed lavender (M&P 43-A-2 to 43-B-2); F. royal purple (43-K-11) blending to narrow edge to match S; beard white tipped yellow. Preamble X Knotty Pine. HC 1968. Keppel 1968.
- *FORT ROCK (Mrs. John Hardy, I. innominata, R. 1967). Siskiyou 1968.
- #FOX TROT (Lorenz, TB, R. 1967). Name transferred to 64-2-B.
- FOX TROT (David Lorenz, R. 1968). Sdlg. 64-2-B. TB, 34", E-M, Y01L. Apricot self, ruffled; wide tangerine beard. Real Delight X Waxing Moon.
- *FRANCISCAN FRIAR (Glenn Corlew, TB, R. 1966). Cherry Lane 1968.
- FRILLY (Wilma Greenlee, R. 1968). Sdlg. 67-9. IB, 21", EM, W1Y. White self with orangy yellow hafts; ruffled. Far Above X Orange Key. Greenlee 1968.
- *FRILLY DILLY (Harry Hite, TB, R. 1967). Hite 1968.
- *FROSTED CREAM (Alta Brown, IB, R. 1967). Brown's Iris Garden 1968.
- *FUCHSIA GEM (Bennett Jones, SDB, R. 1967). Jones 1968.
- GALA AFFAIR (Rex Brown, R. 1968). Sdlg. 64-63-80. TB, 36", M, RV3PFcm. S. light orchid, blended tan at edges, darker orchid midrib, ruffled; F. bright red-violet (Wilson 33), 1/4" band of blended tan at edges, fluted; blended tan and light orchid lacy stylecrests; tan-yellow tipped orchid beard. June Symphony X Melodrama.
- *GALA MADRID (Les Peterson, TB, R. 1967). Tell 1968.
- *GALA ROSE (Arthur Blodgett, TB, R. 1967). Blodgett 1968.
- GARISH (Tom Craig, R. 1968). Sdlg. 7B58. TB, 38", M, OY4RV. S. orange; F. blended French lilac with smooth satinwood hafts. Olympic Torch X Toll Gate. Craig 1968.
- *GARNET GLEAM (David Sindt, MDB, R. 1967). Riverdale 1968.
- #GARNET ROBE (Robert Schreiner, TB, R. 1955). Name released to Schreiners.
- GATE WAY (Herbert Spence, R. 1968). Sdlg. 64-28-7A. TB, 35", M-L, W4BVcm. S. white with lavender infusion; F. pale lavender with white patch in center, slightly laced; tangerine beard. 62-6-4E (Mademoiselle x Rippling Waters) X Rippling Waters.
- *GAY BOUQUET (Mrs. J. W. Berndt, TB, R. 1967). Berndt 1968.
- *GEISHA PARASOL (Maddocks, Japanese, R. 1964). Melrose 1968.
- GENIE (Mrs. J. R. Hamblen, R. 1968). Sdlg. H9-163. IB, 20", M, OR1P. S. pale pink (RHS 36D); F. same with lighter area in center; beard orange (25A) tipped white. Doriot A 32-37: (I. mellita x pink sdlg.) X H56-101 (((54-3-1 small pink ((Pink Tower x Radiation) x (Fuchsia x Pink Enchantment)) x (Cathedral Bells x Pink Enchantment))). HC 1968.
- *GENTIAN ETUDE (Hinkle, TB, R. 1965). Wild & Son 1968.
- GENTILITY (Chet Tompkins, R. 1968). Sdlg. 64-58D. TB, 40", M-VL, W4B. S. chalk white; F. chalk blue; white beard tipped yellow. (South Pacific x Whole Cloth) X (Whole Cloth x South

- Pacific). Fleur de Lis 1968.
- GERALD DARBY (R. H. Coe for Gerald Darby, deceased, R. 1968).
Sib-La. (Flowers of siberian; growth habit of *I. foliosa*).
30", June, V1D. Blue-purple self; twisted red stems.
Orientalis X probably two Louisiana hybrids. Norton Hall 1967.
- GILDED SATIN (Irene Silfies, R. 1968). Sdlg. 6304. TB, 36", M,
B1P. Light blue self with overlay of gilt dusting on hafts;
gold beard. (Starshine x Lula Marguerite) X sib cross 60-06.
- GILDED PIXIE (Irene Silfies, R. 1968). Sdlg. 6517. MTB, 20", E-
TB, B1Lcm. S. light lavender-blue; F. same, gilt edged; deep
brown-gold halo markings, gold hafts and beard. Ruffled
Organdy X 6216-D (Snow Flurry x Green Spot).
- GINGERBREAD MAN (Bennett Jones, R. 1968). Sdlg. M176-1. SDB,
14", M, O5D. Deep brown self; blue-purple beard. Blueberry
Muffins X Gatty M595 ((Little Shadow x Zwanimir) x (April
Morn x Frost Glint)). HC 1968.
- GINGHAM BLUE (Mary Louise Dunderman, R. 1968). MTB, 21", M,
B1L. Light blue self. From line of MTB sdlg. inv. Widget
and Clare Louise.
- *GIRL FRIEND (Berndt, TB, R. 1965). Berndt 1968.
- GIRL TALK (Hazel Schmelzer, R. 1968). SDB, 10", E, B3. S. in-
digo-blue; F. slightly deeper. Parentage unknown.
- GLASS MENAGERIE (Herbert Spence, R. 1968). Sdlg. 62-8-4A. TB,
34", M-L, W1Y. S. warm white with deep flush of peach at base
extending into throat; F. warm cream-white; gold beard.
Rippling Waters X Top of the World. HC 1967. Tell 1968.
- *GOLD CLARION (Margaret Beck, TB, R. 1967). Misty Hills 1968.
- GOLDENA (R. H. Coe, R. 1968). Sdlg. R. 62/71. BB, 26", M-L,
Y1F. Yellow self. Yellow sdlg. (Olympic Torch x Ola Kala) X
Golden Fair. Norton Hall Nurseries 1968.
- GOLDEN AUREOLE (Mrs. D. Hansford, R. 1968). Siberica, 36", L,
Y1Fcm. Mid-yellow self with black signal markings. Charm of
Finches X Charm of Finches.
- GOLDEN AUTUMN (Schreiner's, R. 1968). Sdlg. V 474-3. TB, 38",
ML, OY5L. Pure even shade of golden yellow with hint of straw
gold; beard same. Olympic Torch X R 272-2: ((Golden Blaze x
(M1158-A: Country Butter x Golden Sunshine))).
- *GOLDEN BONANZA (Ben Hager, TB, R. 1967). Melrose 1968.
- GOLDEN BURLEY (M. D. Cramer, R. 1968). Sdlg. 64-I. TB, 36",
ML, Y1Fcm. Rich golden yellow, blending to tobacco brown on
outer edges. Grand Coulee X Beachleaf.
- *GOLDEN COIN (Cora May Pickard, BB, R. 1967). Pickard 1968.
- GOLDEN DIADEM (Eva Smith, R. 1968). Sdlg. 66-52. TB, 32-34",
L-M, Y1F. Deep golden yellow self; very lacy; tangerine
beard. Rainbow Gold X Gracie Pfof.
- *GOLDEN DOME (Hite, TB, R. 1965). Hite 1965.
- GOLDEN DRESS (Eugene Buckles, R. 1968). Sdlg. 66-13. TB, 36",
M, Y1F. Golden yellow self; very lacy. Rainbow Gold X Full
Dress. HC 1968.
- *GOLDEN LARK (Gibson, TB, R. 1965). Cooley 1968.

- *GOLDEN MANTILLA (Grace Guenther, IB, R. 1967). Maple Tree 1968.
- *GOLDEN PARASOL (Harry Hite, TB, R. 1967). Hite 1968.
- *GOLDEN SPECTATOR (Susan Haney, TB, R. 1966). Sierra Vista 1968.
- GOLDIE'S LOVE (Irene Silfies, R. 1968). Sdlg. 6311. TB, 36", ML, Y1F. Pure light gold, gilt dusted, with lighter area in center of F; green underfalls. Lula Marguerite X Mayan Gold.
- GOOD HOPE (Steve Moldovan, R. 1968). Sdlg. 66-23D. TB, 34", EM, Y1Pcm. Cream self, lemon yellow hafts; lemon-yellow beard. Henry Shaw X Kingdom. HC 1968.
- *GOSAU (R. A. Wise, TB, R. 1966). Orpington Nurseries 1968.
- *G. PERCY BROWN (Raymond Smith, TB re., R. 1967). Smith 1968.
- *GRACEFUL LADY (Mrs. E. Miller, TB, R. 1966). Miller 1968.
- GRAND BAROQUE (Dr. Lloyd Zurbrigg, R. 1968). Sdlg. 65-23B-2. TB re., 35", M & re., B4YG. S. opening pale blue, turning white by 2nd day; F. chartreuse with hint of blue in center which fades. Henry Shaw X Replicata.
- GRAND JUNCTION (Forrest McCord, R. 1968). Sdlg. 6250. Siberian, 28", M, B1. S. blue, reverse bud with white markings; F. bright blue. Tunkhannock X Tycoon. HC 1968.
- *GRAND OPENING (Louis Kamps, TB, R. 1967). Moldovan 1968.
- GRAND PATRIARCH (W. A. Payne, R. 1968). Sdlg. 82. Japanese, 48", E, RV4Wcm. S. auricula purple edged white; F. white, slightly veined and stippled auricula purple; stylearms same color as F; 3-petal. Ai-fukurin X Osamaru-miyo.
- GRAPE FESTIVAL (Larry Gaulter, R. 1968). Sdlg. 66-101. TB, 36", M-L, V5D. Concord grape coloring highlighted tokay; brown hafts; tangerine beard. Baccarat X Laurie.
- GREAT RIVER (M. D. Cramer, R. 1968). Sdlg. 64-3. TB, 34", ML, B1F. Medium blue self; ruffled; yellow beard. Eleanor's Pride X South Pacific. Cramer 1968.
- GREENSLEEVES (Opal Brown, R. 1968). Sdlg. 6-15D5. TB, 33", M, R1Pcm. French rose (RHS 49D) with fine edge of chartreuse (2D), chartreuse hafts; beard 49D brushed 29D. Pink Cheeks X L-4E1 from involved pink sdlgs.
- GROOVY (David Lorenz, R. 1968). Sdlg. 65-50B. TB, 34-36", M-L, Y05L. S. smooth apricot-tan with dusky undertone of deeper tan, giving apricot-brown effect; F. same, little ruffling; self beard, deeper in color. Claudia Rene X One Desire.
- *GWYNETH (Ruth Stephenson, IB, R. 1967). Old Brook 1968.
- GYPSY FLIRT (David Sindt, R. 1968). Sdlg. F700. SDB, 12", M, RV5F. Smooth coppery rose with small darker area around beard; deep blue-violet beard. Inca Chief X Sulina.
- *GYPSY MOON (Granger, Louisiana, R. 1965). Granger 1968.
- GYPSY SMOKE (Alta Brown, R. 1968). Sdlg. M 1060-2. IB, 22", E, R5F. S. blend of smoky red, mauve and tan (nearest to (Wilson 0027/1); F. slightly darker around bronze beard; ruffled. TB 58-77-10 ((B218 (Snow Flurry x Beechleaf) x Dark Chocolate)) X Rosy Treasure.

- HALCYON SKIES (Denis R. A. Wharton, R. 1968). TB, 40", M, B1F. Cobalt blue shading to indigo; paler throat; pale yellow beard. First Violet X Blue Sapphire. Derived from seed irradiated with 10,000 rads of radiation.
- HAPPINESS IS (Louis Kamps, R. 1968). Sdlg. 66-12. TB, 36", M, W1C. White self; white beard. Impact X 62-09 (Galilee x Arctic Flame sib).
- *HAPPY HOUR (Alta Brown, IB, R. 1966). Brown's Iris Gdn. 1968.
- *HAPPY MOOD (Alta Brown, IB, R. 1967). Brown's Iris Gdn. 1968.
- HAPPY RETURNS (Mrs. John Hardy, R. 1968). Sdlg. 68-A-3. TB, 48", M, R3P. S. pink tinted white; F. blended dark rose-pink; red beard. From two pink amoena lines inv. Ranger, Pink Cameo, sib to Salmon Shell, Pink Fulfillment, flamingo sdlg., China Gate, Burgundy Rose, Lavender Mist, Spindrift, Pink Formal, Broadway Star.
- HAPPY YEARS (Richard Goodman, R. 1968). Sdlg. 91127. TB, 38-40", M, Y2R. S. red; F. yellow ground, wide red border and stitching; pale yellow beard. High Life X Painted Wings.
- #HARD TO TOP (R. Schreiner, TB, R. 1956). Name released 1968.
- *HATARI (D. Steve Varner, TB, R. 1967). Varner 1968.
- *HAUNTING RHAPSODY (Joseph Ghio, TB, R. 1967). Bay View 1968.
- *HAWAIIAN LOVE CALL (W. B. Schortman, TB, R. 1967). Schortman 1968.
- *HAZE (Ruth Stephenson, IB, R. 1967). Old Brook 1968.
- HEATHER HAZE (Dorothy Palmer, R. 1968). Sdlg. 8366A. BB, 26", M, V5L. S. light lavender-violet grayed; F. basically same color but blended with strong yellow influence; beard dark purple tipped brown-gold; ruffled. Inv. black breeding X ((Faught 56M1 x Faught 124F) x Storm Warning)). HC 1968.
- HEAT LIGHTNING (Mrs. John Hardy, R. 1968). Sdlg. 67-C-1. TB, 48", M, Y1F. Clear deep yellow self with pink area in center; orange beard. From two pink amoena lines inv. Ranger, Pink Cameo, sib to Salmon Shell, Pink Fulfillment, flamingo sdlg., China Gate, etc.
- HEAVENLY STAR (Wilma Greenlee, R. 1968). Sdlg. 67-10. IB, 16", ML-IB, W4Y-B. S. white; F. gold around beard and halfway down F, balance blue; light blue beard. Black Forest X Pearl Shell sdlg. Greenlee 1968.
- *HELLO DOLLY (O. T. Baker, TB, R. 1964). Baker's Acre 1968.
- HEURE MAUVE (Gladys Saxton, R. 1968). Sdlg. 66A4-1. TB, 48", M-L, RV1L. Orchid self; tailored; red beard. Rocket X June Bride.
- H. F. R. MILLER (H. R. Jeffs, R. 1968). TB, 40", M, B1P. Pale blue self. Galilee X Jane Phillips. SC BIS 1968.
- HIGHLINE LAVENDER (Eleanor McCown, R. 1968). Sdlg. 67-17. Spuria, E, 48", RVL4YFcm. S. light purple (Nickerson 7.5P 6/8); F. vivid yellow 5Y 8/12) veined and bordered light purple. Unknown parentage. Pilley's Gdn. 1968.
- HINT O' MINT (Elizabeth A. Wood, R. 1968). Sdlg. 58-43A. TB, 29", E-M, W3. S. white; F. white with green veins. Mirror Lake X 55-2A (Distance x White Wedgewood).

- HIS MAJESTY (H. Ladd Plumley, R. 1968). Sdlg. 6510. TB, 34", M-L, R1D. Dark maroon self. Black Hills X Jean Boyd Fittz.
- #HOLLY KAY (Berndt, TB, R. 1963). Name transferred to sdlg. 24-13.
- HOLLY KAY (Mrs. J. W. Berndt, R. 1968). Sdlg. 24-13. TB, 36", M, Y1Pcm. Cream self; yellow beard; gold edge on F; ruffled and lacy. (Celestial Snow x Flyway sdlg.) X Rippling Waters.
- HONEY HEART (Nadine Yunker, R. 1968). Sdlg. 163-3N. TB, 39", ML, V1Lcm. Amethyst violet (Wilson 35/2) self, ruffled; orange-buff hafts and beard. (((Black Forest x Chivelry) x Lipstick sib)) x ((Love Story x Chivelry) x Hall pink sdlg.))) X (((Arctic Flame sib x Bluebird Blue) x Fleeta)) x sib))).
- HONEY RAE (Caroline DeForest, R. 1968). Sdlg. 66-50. TB, 34", M, 05P. Pink blended apricot; ruffled; apricot-tangerine beard. Oralee X Cashmere.
- *HORNED SUNSHINE (Luella Noyd, TB, R. 1967). Noyd 1968.
- *HOT SPELL (Gordon Plough, TB, R. 1967). Eden Road 1968.
- HOUSE OF LORDS (Dr. Lloyd Zurbrigg, R. 1968). Sdlg. 65-41-Dykes. TB, 38", M, W2RV. White ground with precise, heavy border of raspberry purple; white beard strongly tipped orange. Paper Doll X Stepping Out. HC 1968.
- *HUMDINGER (H. W. Neubert, TB, R. 1967). Neubert 1968.
- HUNT BROWN (Dr. Currier McEwen, R. 1968). Sdlg. 60/32A. TB, 32", EM-M, 05. S. buff (309/4); F. buff (309/2). Senator Brown X Trim.
- *HUNTER'S NIGHT (Carstensen, TB, R. 1967). Nick's Iris 1968.
- *ILLINI ENCORE (D. Steve Varner, Siberian, R. 1966). Varner 1968.
- INDIAN DOLL (Wilma Greenlee, R. 1968). Sdlg. 64-8. IB, 16", E, R1D. Bright red self. Greenlee sdlg. (sib to 59-4 x 59-4) X Agatine. Greenlee 1968.
- *INDIAN FIRE (W. Greenlee, IB, R. 1966). Greenlee 1968.
- *INDIAN FRINGE (Romona Blodgett, TB, R. 1967). Blodgett 1968.
- *INKWELL (Voris, TB, R. 1962). Voris 1968.
- INTENSITY (Walker Ferguson, R. 1968). Sdlg. 66-4. Spuria, 44", EM, OY1F. Bright orangy yellow self. Elixer X Yellow Wings. HC 1968. Ferguson 1968.
- IPANEMA (David Lorenz, R. 1968). Sdlg. 65-34A. BB, 27 $\frac{1}{2}$ ", M, YO1L. Apricot-pink self, ruffled and laced; coral-tangerine beard. Quadros 59-134 X Flaming Heart.
- *IRISH DELIGHT (Luella Noyd, TB, R. 1967). Noyd 1968.
- IRISH SEA (Earl Roberts, R. 1968). Sdlg. 67R11. SDB, 12", E, G1L. Light green self; azure blue beard. Goett 5D1 X Laurin. HC 1968.
- ITSA DOOZEY (Chet Tompkins, R. 1968). Sdlg. 64-301. TB, 44", ML, RV1F. Magenta violet self; ruffled; self beard. ((Mountain Music x Flag Ship) x (Violet Hills x Flag Ship)) X (Mountain Music x High Above). Fleur de Lis 1968.
- IVORY FLUTE (Rex Brown, R. 1968). Sdlg. 63-86-14. TB, 36", EM, W1G. S. greenish ivory-white, ruffled and lacy; F. greenish

- ivory-white with touch of smooth light yellow at haft, very fluted and ruffled; light yellow beard. Queen's Choice X Lovilia.
- *IVORY TOUCH (Hamblen, IB, R. 1967). Mission Bell 1968.
- IVYHOLM BUTTERCUP (Alan W. Johnson, R. 1968). TB, 32", M, Y1L. Light yellow self. (Pink Formal x Party Dress) X Whole Cloth.
- IVYHOLM RUFFLES (A. W. Johnson, R. 1968). TB, 34", M, W4V. S. white; F. violet. Mary McClellan X Whole Cloth. Merton Calvert Award 1967.
- IVY LEAGUE (D. C. Nearpass, R. 1968). Sdlg. 4-66-18. TB, 36", M, W4BL. S. white; F. light blue; yellow beard; ruffled. 9-61-6 (Snow Flurry x Whole Cloth) X Brave Viking.
- JACQUINOT BAY (Dr. G. B. Loveridge, R. 1968). Sdlg. L-11. Spuria, 54", M, B4Wcm. S. blue; F. white with few lines and yellowish center. Morningtide X ((Inflation x (Wadi Zem Zem x Two Opals))).
- JANA WHITE (Mary Louise Dunderman, R. 1968). Sdlg. K-269. MTB, 22", M, W1B. Cool white self; white beard. Pewee X Clare Louise. Dunderman 1968.
- JUNE TAYLOR (J. D. Taylor, R. 1968). Sdlg. H. 47/2. SDB, 12", E, W1B. Bluish white self with lemon infusion at haft; bright blue beard. (Sdlg. x Green Spot) X Blueberry Muffins. HC Wisley 1968.
- *JANET MARIE (Ferris Gaskill, TB, R. 1966). Greenbrier 1968.
- JEALOUS BELLE (Peg Edwards, R. 1968). Sdlg. K310. SDB, 14", M, B1Pcm. Pale blue (Nickerson 2.5PB 9/2) self with large green spot around pale blue beard. H332 (Tinkerbelle x Jaylet) X Blue Denim.
- JEALOUS LOVER (D. C. Nearpass, R. 1968). Sdlg. 2-66-1. TB, 36", M, RV2cm. S. violet-pink; F. white, bordered violet-pink; tangerine beard; ruffled. 0-62-28 (New Adventure x Memphis Lass) X Miss B. Haven.
- JEAN VALON (J. D. Taylor, R. 1968). Sdlg. H.38/4. MDB, 9", E, Y1P. Creamy yellow self with green infusion on F. ((Langdale x Pogo) x Green Spot)) X Atomic Blue. HC Wisley 1968.
- JERRY SCHNEIDER (Harry Riggs, R. 1968). Sdlg. 1-J-2. TB, 30", M, V3D-DD. S. aconite violet (Wilson 937/3); F. aconite violet (937), edged light blue. (Pretender x Wabash x 1-E-9) X Sable Night.
- JESSIE LEY (David Ladd, R. 1968). Sdlg. 34-5. TB, 32", M, V20cm. S. light tan, wavy; F. central portion pale violet with 1/4" wavy yellowish margins; yellow-orange beard with 1/2" horns sometimes. Horned Skylark X Pinnacle.
- *JEWELLED FLIGHT (Hamblen, TB, R. 1966). Mission Bell 1968.
- JODY (Odell Julander, R. 1968). Sdlg. J-66-46. TB, 30", E-L, V1L. Clear lavender self; fluted. Constancy X Rippling Waters. HC 1967. Mayberry-Julander 1968.
- JOHN EVELYN (John Dughi, R. 1968). Sdlg. 65-16-3. TB, 38", M, O3P. S. light pink F. pink from white side (appears as pink coating over white); pink tipped beard. Cloud Cap X Ballerina.
- JOLLY ELF (Schreiner's, R. 1968). Sdlg. 61-1. IB, 24", E, W2V.

- Lavender-orchid-pink plicata on white ground. Dale Dennis X (Rosy Veil x unnamed sdlg.) Schreiner's 1968.
- *JOY RIDE (Luella Noyd, TB, R. 1967). Noyd 1968.
- JUANITA T (Mollie Tallant, R. 1968). Sdlg. 66-26. TB, 36", L, B1F. Medium sea blue self; ruffled; light blue beard. Pacific Panorama X Poet's Dream. HC 1967.
- JULIA FRANCES (E. N. Osborn, R. 1968). Sdlg. JO/64. TB, 36", M, OY1F. Golden tan self. Juliet X Olympic Torch.
- JUNE MELODY (J. E. Venner, R. 1968). Sdlg. 62/3/7. TB, 42", L, VB5. S. violet-blue suffused bronze; F. deep violet-blue, edged bronze; brown hafts; yellow beard. Arabi Pasha X June Bride.
- *JUNE WEDDING (Eva Smith, TB, R. 1967). Smith's Iris 1968.
- *JUNIOR PROM (Joseph Ghio, BB, R. 1966). Bay View and Old Brook 1968.
- JUSTICE (Joseph Ghio, R. 1968). Sdlg. 64-27V. TB, 32", L, B1F. Medium blue self; ruffled; light blue beard. 59-17M (Celestia x Regina Maria) X Ellen Manor.
- *KELITA JETHRO (Rich, Arilmed, R. 1966). Melrose 1968.
- KENO (Luella Noyd, R. 1968). Sdlg. N65-17-6. TB, 31", E, RV3PL. S. pale orchid, green up midrib; F. deeper orchid, yellow haft; orange-yellow beard. Fifth Avenue X Century Twenty-one.
- KENT BUTTERFLY (J. E. Venner, R. 1968). Sdlg. F.65/6. TB, 42", M-L, Y3cm. S. yellow; F. fawn flecked mauve and edged yellow; orange-yellow beard. Red Butterfly X Festoon.
- KENTUCKY HILLS (Georgia Hinkle, R. 1968). Sdlg. X-5-2. TB, 32", M, VB1L. Lobelia blue (Wilson 41/2) self; ruffled; beard V-shaped, beginning white at tip to white-tipped buttercup yellow. Eve X Dear Bob. HC 1966.
- KHARAM (Joseph Gatty, R. 1968). Sdlg. M-661. SDB, 12", M, RV1D. S. violet (RHS 79C); F. RHS 79A edged 77A; beard 79A. Dainty Royal X Golden Fair.
- *KICK OFF (Luella Noyd, TB, R. 1967). Noyd 1968.
- *KISS 'N TELL (George Shoop, TB, R. 1967). Shoop 1968.
- KIX (Schreiner's, R. 1968). Sdlg. T 1201. SDB, 12", EE, Y1F. Rich molten metallic gold-yellow self; self beard. Pink Fulfillment X Carpathia. Schreiner's 1968.
- *KOREAN KAPERS (Loleta Powell, TB, R. 1967). Powell 1968.
- LACED TAPESTRY (Bion Tolman, R. 1968). Sdlg. 60-97-1. TB, 36", VVL, VR1D. S. claret red; F. claret wine red; small blue blaze; laced; brown hafts and beard. Black Taffeta X Ruffled Apache. HC 1967. Tell 1968.
- LACE NEGLIGEE (Dr. Lloyd Zurbrigg, R. 1968). Sdlg. 57-18. TB, 35", M-L, O4W. S. peach (Wilson 512/2); F. white, bordered peach, heavily laced; peach stylearms; laced; beard white, peach deep in throat. Pianissimo X Palomino. Avonbank 1968.
- LADY (Beatrice Warburton, R. 1968). Sdlg. 130K-1. SDB, 12", E-M, VB1L. Light blue self (between RHS 92C and D); deeper blue (95D) beard. 10G-1 ((Blue Denim x C-309 (probably AM-3

- blue pumila Warb. x Spanish Peaks)) X 25G-1 (Green Spot x Ultra).
- *LADY CORDELIA (Buchmann, La., R. 1964). University Hills 1966.
- *LADY MARTHA (Buchmann, La., R. 1964). University Hills 1966.
- *LADY MARY (Buchmann, La., R. 1964). University Hills 1968.
- LADY MONGERSON (Collie S. Terrell, R. 1968). Sdlg. T64-21A. TB, 36", M, B1L. Cobalt blue (Wilson 44/2) self; yellow beard tipped white. Celestial Swan X Music Maker.
- LAKE KALAMALKA (Hazel Schmelzer, R. 1968). Sdlg. 38-7-W15. TB, 34", M, VB1cm. Blue self, edged in wide band of silver, rosy underglow. Favorite Topic X Auda.
- *LAKE MAUMELLE (Chowning, La., R. 1961). University Hills 1966.
- *LANDSCAPE (J. D. Taylor, SDB, R. 1967). Orpington 1968.
- LANDSCAPE BLUE (Walker Ferguson, R. 1968). Spuria, 42", M, B1Fcm. Medium blue; yellow signal. Banners of Blue X 63-E. Ferguson 1968.
- LA PAZ (Tom Craig, R. 1968). Sdlg. 7C74. TB, 40", M, V1F. Wisteria self. (Briney x Patricia Craig sib) X High Above. Craig 1968.
- *LA RASPA (Ben Hager, TB, R. 1967). Melrose 1968.
- LAS VEGAS GOLD (Chet Tompkins, R. 1968). Sdlg. 65-79. TB, 37", ML, Y1F. Golden chrome yellow self; full beard of burnished red-gold accents. (Earlicot x Fusilier) X ((Cool Comfort x Fusilier) x Techny Chimes)). Fleur de Lis 1968.
- *LAUREL OAK (Tom Craig, TB, R. 1966). Craig 1966.
- LAURIKIM WENDY (Joseph Sikora, R. 1968). Sdlg. 63-102. TB, 34", EM, O3P. S. pink; F. light pink; crimson red beard. May Hall X Pink Magic.
- LAVENDER CHERUB (Leona Mahood, R. 1968). Sdlg. 681. MDB, 3", EE, V1P. Lavender self; white beard. ((Cook 1546 x Sulina) x (Cretica x Sulina)) X (Rosy Carpet x white pumila). Mahood 1968.
- LAVENDER SAILS (Luella Noyd, R. 1968). Sdlg. N65-46-12. TB, 35", M, V1L. Light lavender self; orchid beard; small amount of brown at haft. Amethyst Flame X Ever and Ever.
- *LEE'S DELIGHT (C. Protzmann, TB, R. 1966). Protzmann 1968.
- LEMANIS (J. D. Taylor, R. 1968). Sdlg. E. 97/12. SDB, 13", E, W1Ycm. S. white; F. white with yellow hafts, plum spot. Green Spot X sdlg. from Sulina. HC Wisley 1968.
- LEMON ETCHING (Mattie Reinhardt, R. 1968). Sdlg. 67-9. TB, 35", M, Y4Wcm. S. light lemon; F. white with lacy lemon edging, lemon at haft; lemon beard. 65-6 (60-38 x Laced Heiress) X 65-7 (60-38 x Laced Heiress). HC 1967.
- LEMONITE (Hazel McCaffrey, R. 1968). Sdlg. 62. TB, 40", M, Y4Wcm. S. yellow, ruffled and cupped; F. white with pale yellow edging. Golden Spangle X Molten.
- *LEMON SPOT (Willott, MDB, R. 1965). Moldovan's 1968.
- LIGHT FANTASTIC (Opal Brown, R. 1968). Sdlg. 4-13B1. TB, 38", M, W1C. S. ivory, pale blue influence in heart; ruffled; F. ivory, green tints; extremely fluted; beard light yellow,

- pale blue tip. Winter Olympics X M-58-1 ((Melissa x (Poet's Dream x Beth Corey)). HC 1967. Brown's Sunnyhill Gdns. 1968.
- LIGHTNING FLASH (Hazel Schmelzer, R. 1968). Sdlg. 6-7-N 37. TB, 36", ML, O1. Bright orange self; deeper orange stylearms, white area around beard. Lightup X Chinese Coral.
- LILAC LILT (Alta Brown, R. 1968). Sdlg. M 1051-10. IB, 23", E, BVP3VL. S. clear light orchid (Wilson 440); F. sea lavender-violet (637/2), blended lighter at edges; lavender beard. Melodrama X Green Lilt.
- LILAC MIST (Walt Luhn R. 1968). Sdlg. 66-1. TB, 36", E-M, V1L. Lavender (RHS 637/1) self; white beard tipped cream. Pacific Panorama X Rippling Waters. HC 1968.
- *LI'L KITTY HAWK (Dorothy Guild, MTB, R. 1967). Guild 1968.
- *LILLIBULLERO (Charlotte Gantz, SDB, R. 1967). Old Brook 1968.
- LIME FIZZ (Schreiner's, R. 1968). Sdlg. V 825-A. TB, 34", EM, Y1L. Pure shade of lime to canary yellow self; heavily ruffled and laced. P 238-1: L638-1 (((Spanish Peaks) x Chantilly x Midwest Gem)) x Hall's Ruffled White))) x L 649-G (((I 131-D: Chantilly x Midwest Gem) x self)) x (Salamonie x (Chantilly x Midwest Gem))) X P 331-1: M1082-1: (I 12 A x Truly Yours) x Crinkled Ivory. HC 1968.
- LIMEHEART (Marjorie Brummitt, R. 1968). Sdlg. 17/7. Siberica, 39", M, W1G. White self, green haft. White Swirl X Wisley White.
- LISA MICHELLE (Adda Wissbaum, R. 1968). Sdlg. 65-9-5. SDB, 11", M, RV4GP. S. mauvette; F. pale metallic fern green, lighter ruffled edge; beard mauvette tipped tang.in throat. Kaleidoscope X bee.
- LITTLEBRITCHES (Delora Smith, R. 1968). Sdlg. 67-A-3. BB, 19", E-M, B1L. Cerulean blue self; pale yellow beard. C54-6 ((Lavender Mist x Chivalry) x Chantilly)) X C54-4 ((Lavender Mist x Chivalry) x Chantilly)).
- LITTLE BUFFIE (W. B. Schortman, R. 1968). Sdlg. 63106. BB, 18", E-L, BV1L. Blue-violet self with brown haft; yellow beard. Little Dude X Frenchi.
- LITTLE DOCTOR (Carl Quadros, R. 1968). Sdlg. 60-148. BB, 18-24", M, W4B. S. off white; F. deep blue; yellow and white beard; ruffled and fluted. Dr. Wanlass X Melodrama.
- LITTLE GYPSY (Carl Quadros, R. 1968). Sdlg. 65-162A. BB, 18-24", M, OY4RV. S. butterscotch, pink influence or pink cast; F. light medium red-violet; semi-ruffled; yellow beard. Gypsy Lullaby X 61-122BB ((Mary Randall x 56-4 (Palomino x Pink Enchantment))).
- LITTLE LUCY (Mary Louise Dunderman, R. 1968). Sdlg. K-310. MTB, 22½", M, W4RVP. S. white; F. white flushed lavender. Yellow MTB sdlg. ((Warbler x ?) x (Chewink x Widget)) X Siskin.
- LITTLE RICHARD (Steve Moldovan, R. 1968). Sdlg. 1-67N. SDB, 10", VE, GY3PL. S. light chartreuse-yellow (RHS 154D); F. citron green (151C), edged color of S; beard blue tipped white. Nylon Rose X Grace Note. Moldovan's 1968.
- LITTLE SISSIE (W. B. Schortman, R. 1968). Sdlg. 58123. BB, 18", M-L, Y4R. S. yellow; F. dark red; yellow beard. Bold Contrast X varigata sdlg.

- *LITTLE SUNBEAM (Alta Brown, MDB, R. 1967). Brown's Iris Gdns. 1968.
- LITTLE SUSSIE (W. B. Schortman, R. 1968). Sdlg. 6650. BB, 16", M-L, W1Y. White self, yellow at haft, very ruffled; yellow to white beard. Patrician X Celestial Snow.
- LITTLE VANESSA (J. D. Taylor, R. 1968). Sdlg. H.59/2. SDB, 12", M, VR1. Magenta self; white beard. (Langdale sdlg. x sdlg.) X Red Dandy. HC Wisley 1968.
- LITTLE WHITE (Dr. Currier McEwen, R. 1968). Sdlg. 858/76-2. Siberian, 18", M, W1Y. White self with very little yellow haft marking visible. From unnamed sdlg. going back to Gatineau and Snow Queen.
- LORD BALTIMORE (D. C. Nearpass, R. 1968). Sdlg. 1-65-2. TB, 40", E, W4VD. S. blue-white (RHS 97D); F. aster violet (89B); ruffled; yellow beard. 9-61-6 (Snow Flurry x Whole Cloth) X Indiglow.
- *LOTTA CHARM (Luella Noyd, TB, R. 1967). Noyd 1968.
- LOVE AND KISSES (Mrs. John Hardy, R. 1968). Sdlg. 68-A-1. TB; 48", M, W40. S. white; F. bright clear orange-pink; red beard. From two pink amoena lines inv. Ranger, Pink Cameo, sib to Salmon Shell, Pink Fulfillment, flamingo sdlg., China Gate, etc.
- *LOVE LETTERS (Keith Keppel, TB, R. 1966). Keppel 1968.
- LOVELY BALLERINA (Rex Brown, R. 1968). Sdlg. 64-61-34. TB, 32", EM, V3PF. S. pastel lilac; F. bright orchid (Wilson 633), lighter around white beard; ruffled. Melodrama X Seafair Ballet.
- LOVING CARE (Louis Kamps, R. 1968). Sdlg. 66-26. TB, 37", M, VB1P. Pastel lavender (RHS 440/3) self with deeper lavender veins on F; white beard. Melodrama X 62-09 (Galilee x Arctic Flame sib).
- LOWER LIGHTS (Mrs. F. Allen Brown, R. 1968). Sdlg. 62-102. TB, 38", M-L, W1YG. Ruffled white brushed pale lime, deepening to pale olive in throat and edges of fluted petals; white beard tipped olive. Waxing Moon X (Emerald Fountain x Full Dress x Henry Shaw). HC 1967. Landsend 1968.
- *LUCKY SPOT (Tim Craig, MDB, R. 1966). Craig 1966.
- *LULLING DREAMS (Mrs. E. Miller, TB, R. 1966). Miller 1968.
- *LUSCIOUS LOVE (Margaret Beck, TB, R. 1968). Misty Hills 1968.
- LYNDA MAI (Lys Housley, R. 1968). Sdlg. Q-133-B. TB, 35", EML, R1P. Palest pink self; yellow beard. VU185 (June's Sister x Mary Randall) X Enchantress. HC 1967.
- MACONAQUAH (Forrest McCord, R. 1968). Sdlg. 6357. TB, 36", M, W1B. White self; ruffled; beard tipped blue. New Snow X Blue Sapphire.
- MAGIC PALOMINO (Geneva Walker, R. 1968). TB, 36-38", ML, OP4YPcm. S. orange-pink; ruffled; F. ivory, amber edge and shoulders, lightly ruffled on sides; tangerine beard. (Cloud Cap x Palomino) X Lynn Hall.
- MAIDEN VOYAGE (Willard Barrere, R. 1968). Sdlg. B 67-1L. TB, 32-34", EM, V3PFcm. S. light orchid fading to pale orchid at edge; pink-beige flush at base; F. orchid with light orchid

- border and midrib, light orchid texture veining; golden beige hafts with white markings; ruffled; light tangerine beard. Wine and Roses X Orchid Brocade. HC 1968.
- MAIN POINT (Herbert Spence, R. 1968). Sdlg. 62-13-4D. TB, 36", M, W1. White self; F. slightly laced; beard slightly lighter than RHS 25A. Brilliant Star X Rippling Waters.
- MANDARIN MOON (Steve Moldovan, R. 1967). Sdlg. 66-27. TB, 34", L, Y01L. Apricot-orange self, flushed pink; ruffled; deep orange beard. Kingdom X Orange Chariot. HC 1967.
- *MAN, MAN (Cora May Pickard, TB, R. 1967). Pickard 1968.
- MARCHING ON (H. W. Neubert, R. 1968). Sdlg. 15-64. TB, 36", E, V1D. Dark violet self; yellow beard tipped violet; ruffled. Lady Angie X Violet Grace.
- MARGARITA (Schreiner's, R. 1968). Sdlg. W 988-B. TB, 37", ML, W4BV. S. pure cool ice white; F. rich blue-violet-purple, velvety; beard white. T 99-A: 3/A 166 Mrs. Stevens x Whole Cloth X T 836-A ((R 127-A (M1212 (?) x Snowy Heron)) x P 864-A (Lavish Lady x Top Favorite). Schreiner's 1968.
- MARIA CHERRINGTON (David Ladd, R. 1968). Sdlg. 136E. TB, 32", E, V1P. S. pale soft lavender; F. slightly darker. Unknown parentage.
- MARIACHI (Gordon Plough, R. 1968). Sdlg. 64-25-6. TB, 34", EML, Y4OR. S. between aureolin (Wilson 3/2) and lemon yellow (4/2), ruffled, fluted; F. garnet brown (00918/3) with large electric blue blaze in center, tip blends to lighter brown, yellow splashes on each side of Indian yellow (6/1) beard with brownish cast. 61-147-12 (inv. Butterscotch Kiss, Gold Ruffles, Captain Gallant, Cherie, Happy Wanderer, Heritage) X Emma Cook.
- MARILOU (Albert Motsch, R. 1968). TB, 33", M, V40cm. S. lilac shade, edged bronze; F. copper shading to yellow in upper part; yellow beard. Cascade Splendor X Pink Supreme.
- MARILYN HOLMES (Dr. Currier McEwen, R. 1968). Sdlg. S63/40A. Siberian, 27", M, VB1D. S. rich violet-blue (RHS 93D) F. 93B. White Swirl X Blue Brilliant.
- MARTINAE (Luther Martin, R. 1968). Sdlg. 12-1. TB, 36", M, W2V. S. deep violet with minute touches of white at midrib; F. white with $\frac{1}{2}$ " border of deep violet, center flecked with violet. Mary Pickford X Blue Freckles.
- MARY B (Mrs. John Bierman, R. 1968). Sdlg. 6B16. MDB, 6-7", M, VP4Rcm. S. pale silvery gray; F. red with even silvery gray border $\frac{3}{8}$ "; yellow beard. Unknown parentage.
- *MARYLAND LASS (Kathryn Van Dexter, TB, R. 1967). Maple Croft 1968.
- *MARY SUNSHINE (Corliss, Spuria, R. 1964). Coward's 1968.
- MA SU CHEN (Lillian Swearingin, R. 1968). Sdlg. 62-76. Arilbred, 30", E, Y3PDCm. S. primrose yellow (601/3) with uranium green midribs; F. same with medium toast overlay; dark brown veins; small brown signal. I. susiana X Chenik Aga.
- *MATINATA (Schreiner's, TB, R. 1966). Schreiner's 1968.
- MAUREEN'S PRIDE (Arthur Watkins, R. 1968). Sdlg. 59-7-B. TB, 36", L, B1P. Blue-white self; yellow beard. Apricot Dancer X Apricot Dancer.

- MAUVE DRIFT (Leonard Brummitt, R. 1968). Sdlg. 2040/1. TB, 40", M-L, BV1P. Mauve (HCC 39/3) self. Lipstick X Primrose Drift.
- MAUVE MELODY (Dr. Currier McEwen, R. 1968). Sdlg. 60/53B. TB, 48", E-M, RV5P. S. pink-mauve (74D RHS); F. same shading to 75 dot in center; red-orange beard; ruffled. 58/16-1 (Happy Birthday x Pagan Princess) X 57/26A (Native Dancer x Rundlett 5527).
- MAYAN QUEEN (Irene Silfies, R. 1968). Sdlg. 6324. TB, 38", M, Y01L. Apricot toned gold self; deep gold beard. Inca Chief X Mayan Gold.
- *MAYFAIR PINK (Lerton Hooker, TB, R. 1966). Tell's 1968.
- MAYNARD (Beebee Knopf, R. 1968). Sdlg. 66-59. BB, 24", VL, 05DD. Brown-black with green overlay; brown beard. Congo Song X (Bang x Glittering Gold).
- MEADOW MOSS (Bennett Jones, R. 1968). Sdlg. M177-1. SDB, 14", M, G5. S. light moss green; F. same washed brown; amethyst beard. Velvet Caper X Gatty M595 ((Little Shadow x Zwanimir) x (April Morn x Frost Glint)).
- *MEDIA LUZ (Ben Hager, Spuria, R. 1967). Melrose 1968.
- MELCENA (Mrs. Edward Miller, R. 1968). Sdlg. 65-7-M. TB, 36", EM, Y1L. Light cream-buff self with violet beard. Truly Yours X (Sunray x Solid Gold).
- MELONTINGE (Bennett Jones, R. 1968). Sdlg. 868-2. BB, 26", M, W5. White self infused peach, peach rim around F; tangerine beard. B17 ((Spindrift x Jeb Stuart) x Carabella) x Nancy Jean X 720-1: 430 (Pink Enchantment x Party Dress) x ((Spindrift x Jeb Stuart) x Courtier) x 640 ((Frances Kent x Mary Randall) x Frost and Flame)).
- MEREDITH HUES (Loleta Powell, R. 1968). Sdlg. 66-63. TB, 34", M-L, W4RVcm. S. white; F. maroon-red, edged white; gold beard. (Black Forest x June Meredith) X Pink sdlg.
- MERRY AIRE (Mrs. Howard Goodrick, R. 1968). Sdlg. 66-67-14. TB, 40", M, W1W. Pure white self; laced; ruffled F; vivid red beard tipped white. White Caprice X Three Graces. HC 1968.
- MERRY NOTE (A. C. Howe, R. 1968). Sdlg. 5/33. IB, 20", E, Y1P. S. pale yellow; F. deeper. Dateline X 60/6. SC BIS 1968.
- MIDNIGHT SERENITY (Albert Motsch, R. 1968). TB, 34", E-M, RV3D. S. lighter than F; F. midnight burgundy, velvety black with red undertone; dark beard. Parentage unknown.
- MILADY'S FAN (W. A. Payne, R. 1968). Sdlg. 1290. Japanese double, 39", M, V1Dcm. Royal purple self veined white. 954 X Mai-ohgi.
- MILDRED HILL (H. W. Neubert, R. 1968). Sdlg. 38-64. TB, 36", M, B4Vcm. S. light blue; F. dark violet edged in light blue; lightly ruffled; yellow beard tipped violet. Melodrama X Total Eclipse.
- MILLIE ADAMS (Irene Silfies, R. 1968). Sdlg. 6307. TB, 36", EM, Y3Pcm. S. deep cream, gilt edged; F. pale cream, blue tinge in center, gilt edged, gilded hafts; gold beard. Ruffled Bouquet X Lula Marguerite.
- MILLIE GLOVER (Arthur Watkins, R. 1968). Sdlg. 62-35-B. TB, 34", M, B1D. Dark blue self; beard same. Galilee X Major Eff.

- MINI-PLIC (Alta Brown, R. 1968). Sdlg. M 699-4. MDB, 6", E, W2V. S. white, heavily stitched medium violet at edges; F. white with medium violet stitching at edges; near white beard. M253 (Praiseworthy x Snow Baby) X Cretica.
- *MINI-SAPPHIRE (Harry Kuesel, BB, R. 1967). Old Brook 1968.
- MINNESOTA FRILLS (Bakke-Messer, R. 1968). Sdlg. 65-A-1. TB, 34", M, W1Y. Large white self; heavily laced; light yellow throat; white beard. Bright Side X Glenzula.
- MINNESOTA GARNET (Bakke-Messer, R. 1968). Sdlg. 65-B1. TB, 34", M, R1D. Garnet red self, no haft markings. (Ebony Echo x Huntsman) X Huntsman.
- MINT ICE (Earl Roberts, R. 1968). Sdlg. 68R10. SDB, 11", M, G5Lcm. S. silver gray overlaid green; F. light olive edged gray; azure blue beard. Blue amoena sib to Lenna M. X Blueberry Muffins. HC 1968.
- MIRACLE DREAM (Mrs. Edward Miller, R. 1968). Sdlg. 66-10. TB, 36", M, Y1F. Old gold self with brown flush at haft; ruffled. Fluted Pearl X Glittering Amber. HC 1968.
- *MISSEY REVELEY (Frank Chowning, La., R. 1966). University Hills 1966.
- MISS FAIRFAX (Arthur Watkins, R. 1968). Sdlg. 63-22-a. TB, 30", M, B1D. Deep blue self; blue beard. Mt. Repose X Allegiance. Old Brook 1968.
- *MISS TEENAGE (Emma Cook, TB, R. 1967). Cook 1968.
- *MISTER (Ben Hager, TB, R. 1967). Melrose 1968.
- *MISTER RHETT (Eugene Buckles, TB, R. 1967). Buckles 1968.
- MOCHA (David Lorenz, R. 1968). Sdlg. 65-32. TB, 36", M, 05D. S. blend of coffee and chocolate, blended lavender; F. same, yellow beard tipped white. Amethyst Flame X Whole Cloth.
- *MOHAWK TRAIL (L. Markham, TB, R. 1965). Markham 1968.
- *MOLTEN FIRE (Margaret Beck, TB, R. 1967). Misty Hills 1968.
- MOLTEN GLASS (James Marsh, R. 1968). Sdlg. 66-1. BB, 26", M, 01L. Very bright orange self; deep red beard. Prairie Blaze sdlg. X Palmer orange sdlg.
- MOM SCOTT (Marie Macomber, R. 1968). Sdlg. 29-66-12-1. TB, 42", M, Y4W. S. pale lemon yellow; F. wax white, gold markings at hafts; bright gold beard; lightly ruffled; fragrant. St. Jude X Horned Lace.
- MONTE M. (Katie Carstensen, R. 1968). Sdlg. C.3.68. TB, 32", L, OYL40D. S. pongee; F. medium brown or hazel; brown beard; ruffled. Jungle Fires X Inca Chief.
- MOONDAY (Beatrice Warburton, R. 1968). Sdlg. 134K-11. SDB, 12", E-M, B1P. Pale blue-white self (near RHS 108D), beard slightly deeper blue; edges notched and ruffled. 56I-1 ((Sdlg. (BC-302 (sib to Blue Denim) x C-309 (probably AM-3 blue pumila x Spanish Peaks) x Velvet Caper)) X 57I-1 ((37DE330 (AM-3 blue pum. x Frost Glint) x (Pagan Midget x Zwanimir) x Blueberry Muffins)).
- MOONFLOWER (Delora Smith, R. 1968). Sdlg. 66-5-F. TB, 38", M, Y1P. Pale milk cream self even to beard; no haft marks; fragrant; F. deeply fluted at haft. 58-D-1 ((Helen McGregor x (Lavender Mist x Chivalry) x Chantilly)) X white sdlg. 125.

- MOON SHADOWS (David Sindt, R. 1968). Sdlg. F104. SDB, 11", M, V1F. Medium violet self with small darker area around creamy white beard, orange in throat; ruffled. Green Spot X unknown.
- *MORNING KISS (James Tucker, TB, R. 1966). Southern Meadows 1968.
- MORNING RAIN (David Lorenz, R. 1968). Sdlg. 65-13. TB, 32", M, W4V. S. cool blue-white, tinged midribs; F. deep amethyst, ruffled. Emma Cook X Ribbon Round.
- *MY DREAM (Albert Motsch, TB, R. 1967). Motsch 1968.
- MY SHIELA (Alean Kemp, R. 1968). Sdlg. 68-387. MDB, 11", E, BV3RV. S. lavender; F. rich purple; beard tipped lavender to light yellow. Lavender sdlg. X Widget. Kemp 1968.
- *MYSTIC MAID (Alta Brown, SDB, R. 1967). Brown's Iris Garden 1968.
- NATIVE MUSIC (Walker Ferguson, R. 1968). Sdlg. 67-1. Cal., 18", E-M, V1P. Violet self with darker lines in design. Stambach sdlg. X Stambach sdlg. Ferguson 1968.
- *NATURAL POISE (Carstensen, TB, R. 1967). Nick's Iris 1968.
- *NAVY DOLL (Alta Brown, MDB, R. 1967). Brown's Iris Gdn. 1968.
- NELL BROYHILL (Margaret Garrett, R. 1968). TB, 34", M, BV5L. S. lavender with tints of pink; F. lavender with creamy yellow at base; ruffled. Lavish Lady X Crispette.
- NELSON STAR (Mrs. Lucy Delany, R. 1968). Sdlg. 65-101. MDB, 5", M, V1Dcm. Violet blue self with intense black spot around pale blue beard. Pumila sdlg. X sdlg.
- NETTIE WHITE (Arthur Watkins, R. 1968). Sdlg. 64-14-a. TB, 35", M, W1. White self. 56-18 (The Citadel x Cloudless Sky) X Winter Olympics.
- *NEW COMER (G. W. Holleyman, La., R. 1960). University Hills 1965.
- NEW HUES (Tom Craig, R. 1968). Sdlg. 7B7x7. TB, 36", ME, B4RV. S. periwinkle to iris blue; F. grapejuice. Jane Beer X sib. Craig 1968.
- #NEW MOON (Winter, R. 1929). 1939 Check List says not introduced and obsolete. Released.
- NEW MOON (Neva Sexton, R. 1968). Sdlg. 131-62. TB, 36", M, Y1F. Lemon yellow self; lemon beard. Moon River X New Frontier. Sexton 1968.
- NEW SNOW SYMPHONY (W. B. Schortman, R. 1968). Sdlg. 6715. TB, 36", M-L, W1. White self; yellow beard. 459 (inv. Celestial Snow) X Blue Formal.
- NIGHT LAUGHTER (Chet Tompkins, R. 1968). Sdlg. 64-55. TB, 38", ML, BV1D. Midnight blue self. Deep Space X Allegiance. Fleur de Lis 1968.
- NIGHT TIME (Paul Cook by Emma Cook, R. 1968). Sdlg. 268. BB, 26", E, V1DD. Between blackish violet and black; stylearms petunia violet edged blackish violet; blackish violet beard. 10557 X 3161 or Sable Robe. HC 1968.
- NINE MUSES (Joseph Gatty, R. 1968). Sdlg. 66-4. TB, 36", M-L, B50. S. brown flushed amethyst-blue; F. amethyst-blue edged brown, laced; yellow hafts and beard. Hope Divine X Crystal Flame.

- *NOBBY (Ruth Stephenson, SDB, R. 1967). Old Brook 1968.
- NOBLE GUEST (Marvin Olson, R. 1968). Sdlg. 67-14A. TB, 36", M-L, Y1F. Lemon yellow self (Wilson 4/1) with small white area on F. ((Pink Cameo x Pink Formal) x Mary Randall)) X Sunsite. HC 1968.
- NOCTURNAL SHADOW (W. A. Payne, R. 1968). Sdlg. 1217. Japanese double, 30", M, B1. Roslyn blue self. Blue Nocturne X 890.
- *NOEL ENFANTE (Hazel McCaffrey, IB, R. 1962). Crooked Creek 1968.
- NO NAME (Marjorie Brummitt, R. 1968). Sdlg. 34/2. Pacific Coast, 12", M, Y3PF. S. light yellow; F. yellow. Pacific Splendor X Sdlg. douglasiana. PC Wisley 1967.
- *NORDIC LIGHT (Kathryn Van Dexter, TB, R. 1967). Maple Croft 1968.
- NORMANDIE (Larry Gaulter, R. 1968). Sdlg. 63-340. TB, 36", M-L, VB1L. Light lavender-blue self shading to near white in center; tangerine beard. (((Fuchsia x Party Dress) x Frost and Flame)) x Arctic Flame))) X Sib. Cooley's 1968.
- NUMERO UNO (F. E. Hutchings, R. 1968). Sdlg. 63-73C. TB, 35", M, W40P. S. white with infusion of salmon pink at base; F. salmon pink; orange beard; slightly ruffled. 61-180D ((Knopf 1737 (Cloud Cap x Hall C x P18) x 59-160A (Diehl 55-44 x Snow Fire)) X 61-64A ((59-96A (57-104 x 57-106) x China Gate))). HC 1968.
- NU-NU (Adda Wissbaum, R. 1968). Sdlg. 65-12-3. MDB, 8", M, Y3. Aureolin yellow bitone; ruffled; beard pale blue at tip changing to tangerine in throat. Lilli-Yellow X bee.
- OCEAN CLIPPER (R. H. Bailey, R. 1968). Sdlg. B14 58. TB, 36", M, B1F. Anchusa or cobalt blue self; white beard. Joan Phillips X Chivalry.
- #OCTOBER ALE (Robert Schreiner, TB, R. 1954). Name released to Schreiner's.
- OCTOBER ALE (Schreiner's, R. 1968). Sdlg. W530-B. TB, 36", EM, Y05F. Soft russet to deep brown-bronze self; light gold beard influenced tan-brown. Brass Accents X P 514-1. Schreiner's 1968.
- *OH GEE (H. W. Neubert, TB, R. 1967). Neubert's 1968.
- OLIVE COCKTAIL (Alta Brown, R. 1968). Sdlg. 64-47-7. BB, 21", EM, OY5L. S. smoky greenish tan; F. same with darker brown at haft and hint of lavender in center; brown beard. Jungle Shadows X Wayward Wind. EC 1968.
- *OLYMPIC KATE (Eugene Buckles, BB, R. 1967). Buckles 1968.
- ONALASKA SKIES (Frances Finney, R. 1968). Sdlg. 63-15. TB, 38", M, B3L. S. light blue; F. lighter blue; yellow beard tipped blue. Black Forest X Indiana Night. Finney 1968.
- ONE REASON (Walker Ferguson, R. 1968). Sdlg. 65-20. Spuria, 46", M, B1Lcm. Lavender-blue with white markings; yellow signal. Moon by Day X Ruffled Moth. Ferguson 1968.
- OPERETTE (Jean Cayeux, R. 1968). Sdlg. Nr 60 45 A. TB, 33", M, V1P. Orchid-pink self; red beard. Happy Birthday X (Blue Throat x Apricot Glory).

- ORAGLOW (Odell Julander, R. 1968). Sdlg. J-65-8. TB, 34", M-L, O1F. Golden-orange self. Rainbow Gold sdlg. X Bright Forecast sdlg. HC 1967. Mayberry-Julander 1968.
- ORANGE CHIFFON (Eva Smith, R. 1968). Sdlg. 66-28. TB, 36", M, O1L. Soft orange self; tangerine beard. Marilyn C X Celestial Glory.
- ORANGE ICING (Beryl Carlson for G. A. Carlson, R. 1968). Sdlg. A64-48-9. TB, 29", EML, YO1P. S. tangerine orange (Wilson 9/2); F. same with pink glow around saturn red (13/1) beard. H62-67-A (unknown) X sdlg. inv. Lipstick, Luxury Line, Pretty Gay, Rainbow Gold, Twenty Grand, etc.
- ORANGE RIOT (Alta Brown, R. 1968). Sdlg. M 983-6. IB, 21", E, YO1L. Bright apricot-orange self; beard marigold orange, wide and bushy. Lillipinkput X La Parisienne.
- ORCHID ECHO (Edna Yunker, R. 1968). Sdlg. 78-A. TB, 38", ML, VB4RV. S. lobelia (Wilson 41/3); F. petunia purple (32/1); yellow tipped blue beard. Melodrama X Rippling Waters. HC 1968.
- ORIENTAL FANTASY (W. A. Payne, R. 1968). Sdlg. 1335. Japanese, 44", EM, W1Vcm. Six-petal, ruffled form; F. white lightly sanded mauve; frilled, cream-colored styles and twisted stamens tipped manganese violet. Yamato-nishiki X Carnival Queen.
- ORINDA (Larry Gaulter, R. 1968). Sdlg. 63-251. TB, 36", M, Y5L. Rose and tan blend; ruffled; copper-brown hafts; orange-brown beard. Mademoiselle X Melodrama. Cooley 1968.
- OUTREACH (Jeannette Nelson, R. 1968). Sdlg. 65-78-2. TB, 36", EM, Y4Wcm. S. solid lemon yellow (Wilson 4/1) F. white with hafts and edges lemon yellow, edges crimped; slightly deeper yellow beard. Alaskan Crown X Foreign Affair.
- #OUT WEST (Schmelzer, TB, R. 1963). Name transferred to Sdlg. 35-7-W14.
- OUT WEST (Hazel Schmelzer, R. 1968). Sdlg. 35-7-W14. TB, 35", ML, Y1L. Soft yellow self; pinkish beard. Wide Country X French Lace. HC 1968.
- *PACIFICA (J. W. Nelson, TB, R. 1967). Cooley 1968.
- PACIFIC ISLE (Herbert Spence, R. 1968). Sdlg. 62-10-4E. TB, 32", M-L, VB1D. Dark violet-blue self, velvety; self beard. Top Of The World X Father Rigney. HC 1965.
- PACIFIC REALM (B. F. Blyth, R. 1968). TB, 36", E-M, B1P. Sky blue self; blue beard. (Snow Flurry x Sultan's Robe) X (Sky Ranger x Jane Phillips).
- PAGAN BUTTERFLY (Earl Roberts, R. 1968). Sdlg. 67R25. SDB, 13", E-M, Y1Fcm. Bright golden yellow with orange-tan spot on F; lemon yellow beard. Russet Dot X 65R30, pink sib to Lenna M.
- PALE CLOUD (Keith Keppel, R. 1968). Sdlg. 64-16A. IB, 21", E, W2VBP. S. white with $\frac{1}{2}$ " even sanding of light lavender-blue (M&P 42-B-5); F. white, narrow pale lavender plicata border; white beard. 61-48B (Full Circle x Rococo) X Zip. HC 1968.
- *PAINTED ANGEL (Gordon Plough, TB, R. 1967). Eden Road 1968.
- PANDORA'S GIFT (Delora Smith, R. 1968). Sdlg. P-62. TB, 40", M-L, W3. S. pure white with heavy green midribs, some lace

- and ruffling; F. creamy white overlaid violet, olive and gold; lemon beard; back of F. grass green; effect white and strong green amoena. (Loomis S.Q 72 x Rose Top) X self.
- PANORAMIC (Mrs. J. R. Hamblen, R. 1968). Sdlg. H63-7D. TB, 38", E-L, V3LF. S. blue-violet (RHS 92C); F. violet (87A); yellow-orange beard. Lilac Champagne X 6074: Lilac Champagne x ((Palomino x (Radiation x Great Lakes)) x ((Helen McGregor x Hit Parade) x Palomino)) x (Fashion Show x Melodrama). HC 1968.
- *PAPER CITY (Mrs. J. W. Berndt, TB, R. 1967). Berndt 1968.
- *PARCHMENT PLUM (David Sindt, SDB, R. 1967). Riverdale 1968.
- PARTY CLOTH (Alan Johnson, R. 1968). TB, 28", M, Y4V. S. yellow; F. light violet. Party Dress X Whole Cloth.
- PASTEL FASHION (Merle Daling, R. 1968). Sdlg. 65-1. TB, 38", ML, OP4OYP. S. peach (Wilson 512/3); F. maize yellow (607/3) with greenish glow heaviest at midrib; beard shrimp red. Dawn Crest X Spring Festival.
- PASTEL RUFFLES (Arthur Hazzard, R. 1967). Sdlg. 604. Japanese, 32", VL, B1L. Light blue self; ruffled; variable edges; white stylearms, self tipped, feathered. 131 (Caroline G. Childs x unknown) X unknown. Hazzard 1968.
- PANTOMIME (Sanford Babson, R. 1968). Sdlg. P91-19. TB, 40", M, W1Vcm. S. pearl; F. pearl with faint greenish tinge, yellow edging on hafts. ((Rehobeth x Mary McClellan) x (Tobacco Road x Bali Belle)) X (((Vantican Purple x Spanish Peaks) x red sdlg.)) x Commentary)).
- PATRICIA BELL (Irene Silfies, R. 1968). Sdlg. 6380. TB, 34", EM, W1B. Blue-white self. (Snow Flurry x Azure Skies sdlg.) X Cloud Castle.
- PATSY LOU (Irene Silfies, R. 1968). Sdlg. 6250-D. SDB, 12-14", E, Y1L. S. cream gold; F. same, light green-gold markings; gilt edged. Green Halo X Picture Yellow.
- PATTERNED BEAUTY (Tom Craig, R. 1968). Sdlg. 7B59. TB, 34", M, O4R. S. cinnamon to golden wheat; F. dahlia carmine to old mauve. Prettyfield X (Feza x Melodrama). Craig 1968.
- *PAWNEE PRIDE (James Tucker, TB, R. 1966). Southern Meadows 1968.
- PEACH GLOW (Bennett Jones, R. 1968). Sdlg. 868-1. TB, 36", M, W5. S. white flushed peach; F. white, peach hafts; tangerine beard. B17 (((Spindrift x Jeb Stuart) x Carabella)) x Nancy Jean))) X 720-1: 430 x 640 ((Frances Kent x Mary Randall) x Frost and Flame)). HC 1968.
- PEACH PAISLEY (D. C. Nearpass, R. 1968). Sdlg. 4-66-4. TB, 38", M, O4W2V. S. peach pink (Munsell 2.5YR 9/3), lightly ruffled; F. pink pastel (near white) bordered with violet plicata markings, brownish shoulders; tangerine beard. 2-64-1 (New Adventure x O-62-9: Captain's Lady x Emma Cook)) X Miss B. Haven.
- PEACH QUEEN (Esther Tams, R. 1968). Sdlg. T-17-65. BB, 25-28", M-L, Y01Lcm. Apricot self with gold lacing, ruffled and fluted. Pink Divinity X Rippling Waters. Tell 1968.
- PEACH RIM (Rex Brown, R. 1968). Sdlg. 64-151-5. TB, 36", M, Y04Wcm. S. light peach, ruffled; F. waxy white with narrow

- peach rim and smooth peach at edge of haft, lightly ruffled; bushy, bright fire red beard. 60-91 (Startling x Irene Brown) X Chinese Coral.
- PEACH SPLENDOUR (Richard Goodman, R. 1968). Sdlg. 91128. TB, 38-40", M, OY2W. S. blend of peach and apricot; F. cream-white ground with blend of peach and apricot markings; pale peach beard. High Life X Painted Wings.
- PEACHY PINK (Frances Finney, R. 1968). Sdlg. 63-8. TB, 36", EM, YO1L. Peach pink self; red beard. Garden Party x pink sdlg. Finney 1968.
- *PEARLS AND LACE (Charles Wm. Voris, TB, R. 1967). Voris 1968.
- *PEEK A BOO (Opal Brown, TB, R. 1964). Brown's Sunnyhill Gdns. 1968.
- *PEG WINTER (Corliss, Spuria, R. 1964). Coward's 1968.
- PENNY PINK (Marjorie Brummitt, R. 1968). Sdlg. 103/1. Pacific Coast, 12", M, RV1P. Mallow pink self with golden spot. Sdlg. X Banbury Welcome.
- *PENTHOUSE (Joseph Ghio, TB, R. 1967). Bay View and Old Brook 1968.
- PERSIAN DANCER (Doris Foster, R. 1968). Sdlg. 67-20-5. Aril (Regelio-cyclus hybrid), 20", EM, V3LFcm. S. light imperial purple, veined darker, ruffled; F. medium imperial purple, darker veining, deep imperial purple signal, recurved, lightly ruffled; gold beard. Persian Pansy X Persian Pansy.
- PERSIAN QUEST (Doris Foster, R. 1968). Sdlg. 67-20-4. Aril (Regelio-cyclus hybrid), 21", EM, V1L. Light amethyst violet self, veined darker, deep amethyst violet signal, pale violet stylearms; gold beard. Persian Pansy X Persian Pansy.
- PERSIAN STAR (Doris Foster, R. 1968). Sdlg. 67-20-6. Aril (Regelio-cyclus hybrid), 18", E-M, V1F. S. spectrum violet, finely veined; F. spectrum violet, veining and netting, recurved; golden bronze beard, shiny black signal. Persian Pansy X self.
- *PERSIAN SWIRL (Hite, TB, R. 1965). Hite 1965.
- *PICORA'S DAUGHTER (Cora May Pickard, TB, R. 1967). Pickard 1968.
- *PICTURE PERFECT (Mark Rogers, TB, R. 1967). Sierra Vista 1968.
- PINK CHEER (Gordon Plough, R. 1968). Sdlg. 62-169-2. TB, 35", EM, RO1P. S. very pink (Wilson 13/3); F. slightly lighter and warmer pink; saturn red beard (13/2). Cherry Malott X One Desire.
- PINK GALAXIE (John Rusk, III, R. 1968). Sdlg. R 67-2. TB, 36", M, O1P. Pink self. Arctic Flame X Flaming Heart. HC 1968.
- *PINK HORIZON (Schreiner's, TB, R. 1967). Schreiner's 1968.
- *PINKIE LEA (Tom Craig, TB, R. 1966). Craig 1966.
- PINK MAGNOLIA (Opal Brown, R. 1968). Sdlg. 6-15A5. TB novelty, 28", M, RO1P. No standards; F. (6) Orient pink (RHS 36D), deeper veining in heart; beard 41C. L4E1 (inv. pink sdls.) X Candle Flame.
- *PINK PERSONALITY (Dorothy Christie, TB, R. 1966). Wanganui 1968.

- PINK PIROUETTE (William Newhard, R. 1968). Sdlg. 702. TB, 30", EML, O1P. S. Orient pink (RHS 36A); F. peach (29D); tangerine-red beard. Rippling Waters X Alice Christy. HC 1968.
- *PINK PLATTER (Tom Craig, TB, R. 1966). Craig 1966.
- *PINK PUPPET (Hite, TB, R. 1965). Hite 1965.
- PINK RAINBOW (H. Ladd Plumley, R. 1968). Sdlg. 6322. TB, 36", M-L, R1P. Strawberry pink self; red beard with blue tip. Frost and Flame X (5908 x Ice Carnival).
- PINK REVERIE (Alta Brown, R. 1968). Sdlg. M 1205-3. IB, 22", E, O1P. Pink self with slight orchid influence, ruffled; bright saturn red beard. Pink Pride X Pink Pride.
- *PINK TAFFETA (Rudolph, TB, R. 1965). Moldovan 1968.
- #PINK VELVET (R. Schreiner, TB, R. 1953). Name released 1968.
- #PINK WINE (R. Schreiner, TB, R. 1953). Name released 1968.
- *PIPPA PASSES (Ruth Stephenson, SDB, R. 1967). Old Brook 1968.
- *PITTI SING (B. Warburton, SDB, R. 1967). Warburton and Old Brook 1968.
- PLAY IT COOL (Tom Craig, R. 1968). Sdlg. 7W14. TB, 34", M, B4W. S. plumbago to chicory blue; F. cold white. Patricia Craig X (blue sdlg. x Wide World). Craig 1968.
- PLEASING (Tom Craig, R. 1968). Sdlg. 7JB-1. TB, 36", M, RV3PL. S. pearl gray flushed rosy orchid; F. veronica flushed red-violet. Jane Beer X (Bacchus x Whole Cloth). Craig 1968.
- *PLUM DANCER (Harry Hite, TB, R. 1967). Hite 1968.
- *POINT CLEAR (Cora May Pickard, TB, R. 1967). Pickard 1968.
- *POLAR BEAUTY (Hite, TB, R. 1965). Hite 1965.
- POLLY DODGE (Dr. Currier McEwen, R. 1968). Sdlg. 64/67-4. Siberian, 20-25", EM-LM, RV1F. S. 74B; F. 74A but darker and of velvety surface; styles 74C. 61/Cas 2 (Violet Flare x unknown) X unknown. Colchicine induced chimera.
- POLYNESIAN SUNSET (Schreiner's, R. 1968). Sdlg. T 892-2. TB, 36", EM, RV1P. Soft pearly mallow pink, shot luminescent ivory; lemon yellow beard. M 312-A (Lavanesque x Top Favorite) X Whole Cloth. Schreiner's 1968.
- PONDEROSA (Joseph Ghio, R. 1968). Sdlg. 65-158B. TB, 36", ML, O5D. S. rosy brown; F. blend of brown, violet and red; ruffled; yellow-brown beard. Denver Mint X Moon River.
- PO TING (Joseph Lynn, Jr., R. 1968). Sdlg. 65-1. TB, 34", M, W4Vcm. S. buttercup yellow; F. light lilac violet, light yellow underneath, faint line of yellow edges; yellow-gold beard. Personality Plus X Whole Cloth. HC 1968.
- PRAIRIE EDGE (Arthur Hazzard, R. 1968). Sdlg. 299. Japanese, 36", E, W2V. S. none; F. white with wide dark blue-violet edge; stylearms erect, white with blue-violet tips. Gold Bound X Fascination. Hazzard 1968.
- PRAIRIE PINK (Arthur Hazzard, R. 1968). Sdlg. 482. Japanese, 30", M, W1Vcm. S. none; F. white with pink-violet veining; stylearms bright pink-violet, erect and feathered; signal with white and pink-violet halos. Gold Bound X Fascination. Hazzard 1968.

- PRAIRIE SKIES (James Marsh, R. 1968). Sdlg. 65-33. TB, 34", EM, B1P. Pale blue self (Wilson 43/4); very ruffled. Galilee sdlg. 61-30 X Ellen Manor. HC 1967. Marsh 1968.
- PRECOCIOUS PINK (Dr. Currier McEwen, R. 1968). Sdlg. 60/61A. TB, EE-L, 33", O1P. S. pink (RHS 36A); F. pink (27A); beard 40B; ruffled. 58/16-1 (Happy Birthday x Pagan Princess) X June Meredith.
- *PRECIOUS ONE (Grace Guenther, SDB, R. 1967). Maple Tree 1968.
- PREFERRED MAN (Tell Muhlestein, R. 1968). Sdlg. 115. TB, 36", M-L, V3LD. S. light blue-violet; F. velvety dark violet; yellow beard. (Mary Randall x Pink Accent) X Melodrama. Tell's. 1968.
- *PRIMROSE CORSAGE (Corliss, Spuria, R. 1964). Coward 1968.
- PRISM-LITES (Alean Kemp, R. 1968). Sdlg. 68-498. MTB, 26", M, OY1Fcm. Orange-yellow self with violet-purple flush along ribs of S and in F; yellow beard. Warbler X lavender sdlg. Kemp 1968.
- PROLIFERATION'S PRIDE (Arthur Watkins, R. 1968). TB, 32", M, Y1F. Lemon sherbet yellow self; dark yellow beard. (((Snow Flurry x Flora Zenor) x (Lady Boscowen x Ola Kala)) x (Hi Time x Pink Fulfillment))) X Sarah Ashcroft.
- PROVIDENCE (Irene Silfies, R. 1968). Sdlg. 6310. TB, 36", L, GY1Fcm. Deep green-gold self with white area around deep green-gold beard; green under F. Lula Marguerite X Mayan Gold (sib cross).
- PSYCHEDELIC SAL (Mrs. John Hardy, R. 1968). Sdlg. 2A7-B7. TB, 36", L, YO1Lcm. Bright dark melon self with bright red veining and shading over all of F; fiery red-orange beard with purple undertone. D26 (Ranger x Pink Cameo) x ((flamingo sdlg. x (sib to Salmon Shell x Pink Fulfillment))) X Tompkins 58-117.
- *PUNCHLINE (Gordon Plough, TB, R. 1967). Eden Road 1968.
- PUPPET (Ben Hager, R. 1968). Sdlg. M2003E. SDB, 12", EE, VB1Lcm. Light lavender-blue self with mahogany on hafts. Sib to Zing X Dark Fairy.
- PUPPY LOVE (Ben Hager, R. 1968). Sdlg. BB2041A. BB, 26", M, OP4VP. S. pink; F. orchid; tangerine beard. ((Native Dancer x Progenitor)) x June Meredith)) X ((Craig pink sdlg. x Happy Birthday) x (apricot sdlg., unknown)) X Glittering Amber.
- PURPLE HEATHER (Mary Louise Dunderman, R. 1968). Sdlg. L-924. MTB, 20", M, RV1L. Light purple self; orange beard. Medium blue MTB sdlg. G-164 X H-1369 (Black Forest x Green Spot). Dunderman 1968.
- PURPLE KNIGHT (Walker Ferguson, R. 1968). Sdlg. 67-13. Spuria, 48", M-L, V1Dcm. Dark blue-purple self; yellow signal; area below signal very dark velvety black. (Investment x Driftwood) X sib to Blue Earth. HC 1968. Ferguson 1968.
- QUACHETA (Les Peterson, R. 1968). Sdlg. LP 66-12A. AR, 28", E-M, OR5D. S. mottled red-brown blend; F. same; faint signal; dull yellow beard. LP 64-10A (Imam Ahmid x Bali Aga) X Kalifa Kabul. HC 1968.
- QUEEN OF FASHION (Reuben Smith, R. 1968). Sdlg. G16G29. TB, 32-

- 36", M-L, Y1F. Sunshine yellow self including beard; frilled and ruffled. G16 (Solid Gold x White Waters) X G19 (April Love x Lemon Bowl).
- *QUEEN'S DELIGHT (Eva Smith, TB, R. 1967). Smith's Iris Gardens 1968.
- *QUETTA (Gordon Plough, TB, R. 1967). Eden Road 1968.
- *QUIET CREAM (Walker Ferguson, Spuria, R. 1967). Ferguson 1968.
- QUIET FLIGHT (George Crossman, R. 1968). Sdlg. 64-27. TB, 35", M-L, VB1P. Pale blue-violet self, white band across hafts; white beard with yellow deep in throat. Galilee X 2 Blocher sdls. x (Fay 5376 x Butterfly Blue).
- QUIET GRANDEUR (Tell Muhlestein, R. 1968). Sdlg. 108. TB, 36", EM, Y1L. Light straw yellow self; ruffled F. (Cream Crest x Queen's Lace) X 57-41 ((June's Sister x Madsen 3-50B (Fantasy x Pink Formal)). Tell 1968.
- *QUIET NIGHT (Paul Cook, TB, R. 1967). Moldovan 1968.
- QUIET SOLILOQUY (C. J. Blyth, R. 1968). Sdlg. 67-8. Arilbred, 34-36", E-M, W3. S. pure white; F. white with overlay of chartreuse; lemon beard. (Tropic Moon x Cabarita) X cream aril sdlg. of unknown parentage. HC (Aust.) 1967.
- RADIANT BEAM (Marvin Olson, R. 1968). Sdlg. 66-2A. TB, 38", M-L, Y4Wcm. S. aureolin yellow (Wilson 3/3); F. aureolin yellow (3/1) at haft area, balance white. Arctic Flame X Marshmallow. HC 1967.
- RADIANT BRIDE (Chet Tompkins, R. 1968). Sdlg. 65-151. TB, 39", M-VVL, W1W. Icy white self, fluted and ruffled. (Poet's Dream x Galilee) X Cloud Country. Fleur de Lis 1968.
- RADIANT SMILE (Henry Danielson, R. 1968). Sdlg. 66-2. Arilbred, 24", E-M, O5Dcm. S. white; F. bronze; reddish-black signal patch; bronze beard. Darandus X Kalifa Kashan. HC 1968. Mount Clare 1968.
- *RADIANT SUN (Hamblen, TB, R. 1967). Mission Bell 1968.
- *RAIN POOL (Bennett Jones, BB, R. 1967). Jones 1968.
- *RARE TREASURE (Eva Smith, TB, R. 1967). Smith's Iris Gardens 1968.
- *RASPBERRIES ON ICE (Vallette, TB, R. 1963). Come 'N' Look 1968.
- RASPBERRY ACRES (Wilma Greenlee, R. 1968). Sdlg. 67-2. IB, 18", E, W2RV-O. White ground plicata sanded raspberry pink and brown; white beard, brown tipped. Henna Stitches X Greenlee rose-pink sdlg. (F₄ Cretica x Cherie). Greenlee 1968.
- *RASPBERRY PARFAIT (C. E. McCaughey, TB, R. 1963). Mission Bell 1968.
- *REAL TAN (Patricia Craig, TB, R. 1966). Craig 1966.
- RECITAL (Mrs. J. R. Hamblen, R. 1968). Sdlg. M63-11-6. BB, 21", M, BVFP. S. violet-blue (90B); F. violet-blue (91D), deeper toned at base and midrib; beard pale yellow (4D). Pixie Skies X pink sdlg. 59-74 ((pink sdlg. 7-109-1 (Fair Luzon x Rosedale) x Pink Enchantment) x Garden Party)).
- RED BOAT (Tom Craig, R. 1968). Sdlg. 7R1-2. TB, 34", ME, R1D.

- Deep port wine self with crimson undertones. (Adam x Edenite)
X (Breeder Red x Port). Craig 1968.
- RED DESIRE (Tom Craig, R. 1968). Sdlg. 7R60-6. TB, 36", M, R1D.
Dark coronation red. Supered X Edenite. Craig 1968.
- *RED PIXIE (Alta Brown, MDB, R. 1967). Brown's Iris Garden 1968.
- RED PLUME (Tom Craig, R. 1968). Sdlg. 7R61-1. TB, 36", M, RV1D.
Fireweed to imperial purple self. Supered X (Brigadoon x
Regal Velvet). Craig 1968.
- REGAL IMAGE (Mrs. Howard Goodrick, R. 1968). Sdlg. 51-66-10.
TB, 35", M, VB1F. Strong violet-blue self with velvet over-
lay on F; ruffled; creamy white beard tipped blue. Galilee X
light blue sib to Enchanted Snow.
- *REGAL VELVET (Tom Craig, TB, R. 1964). Craig 1966.
- *RELUCTANTLY (Jake Scharff, TB, R. 1966). Buckles 1967.
- *REPARTEE (C. & K. Smith, TB, R. 1966). Moldovan 1968.
- *RIBBONS OF BLUE (Gordon Plough, TB, R. 1967). Eden Road 1968.
- RICHMOND ROYAL (R. D. Little, R. 1968). Sdlg. L-24-66. TB, 36",
E, BV1D. Very dark navy blue with dark blue-brown tipped
beard. Allegiance X Royal Canadian.
- RIOT (Denis R. A. Wharton, R. 1968). TB, 28-30", M, RV3. S.
maroon rose; F. paler maroon rose, fading in center to pale
pink; pale yellow beard. Majorette X Mary Randall. (Derived
from seed irradiated with 10,000 rads of beta radiation).
- RIPPLING SEA (Rex Brown, R. 1968). Sdlg. 64-74-3. TB, 38", EML,
VB1L. Lavender-blue self, heavily ruffled and fluted; little
lighter around light yellow tipped blue-white beard. Silver
Wedding X Rippling Waters.
- RIPPLING WINE (Tom Craig, R. 1968). Sdlg. 7CJ.B-2. TB, 36",
EM, RV1F. Campanula violet self. (Bacchus x Melodrama) X
(Adam x Mary Randall).
- RITZ (Schreiner's, R. 1968). Sdlg. T 1206. SDB, 14", EE, Y3Fcm.
S. pure sunflower yellow; F. sunflower yellow with central
part of each petal prominently marked with thumbprint rich
maroon red. TB yellow blend X Austrian pumila. Schreiner's
1968.
- RIVERDALE (C. A. Wells by Riverdale Iris Gdns., R. 1968). Sdlg.
W-604. TB, 30", M, OR4RV. S. amber rose with amber midribs;
F. deep wine-maroon with light edging; light brownish-maroon
beard. Unnamed sdlg. x unnamed sdlg.
- RIVER STYX (Helen Reynolds, R. 1968). Sdlg. 26-64. TB, 36", M-
L, VB1DD. Blue-black self including beard; ruffled. 57-45D
(Black Hills x self) X Tea Apron. HC 1966. El Dorado 1968.
- ROCKET FLAME (Wilma Greenlee, R. 1968). Sdlg. 67-1. IB, 18",
E, W20. Rust and orange plicata on white ground. My Honey-
comb X Knotty Pine. HC 1968. Greenlee 1968.
- *ROLLING WAVES (Edward Christensen, TB, R. 1967). Eden Road
1968.
- ROMAN VILLA (Ferris Gaskill, R. 1968). Sdlg. 25-63-16. TB,
37", ML, YO4YF. S. bright buff-tan, laced; F. smooth gold,
laced; tangerine beard. Rainbow Gold X Hall pink sdlg.
Moldovan's 1968.

- ROSE ADGIO (W. A. Payne, R. 1968). Sdlg. 1342. Japanese, 39", M, W1cm. White stippled and lightly veined Mathew's purple, blending heavier to margin of petals; 9-petal. Windswept Beauty X Yuka-dohro.
- *ROSEGAY (Alean Kemp, MTB, R. 1967). Kemp 1968.
- *ROSE HARMONY (A. Brown, IB, R. 1967). Brown's Iris Gdn. 1968.
- *ROSEMARY LANE (R. A. Wise, TB, R. 1966). Orpington 1968.
- *ROYAL DREAM (Harry Hite, TB, R. 1967). Hite 1968.
- ROYAL EGYPTIAN (Georgia Hinkle, R. 1968). Sdlg. X-4. TB, 30", OY1P. S. Egyptian buff (Wilson 407/2); F. same and slightly laced; ruffled; self-colored beard. Lasata X Daisy Powell.
- *ROYAL FAIRY (A. Brown, SDB, R. 1968). Brown's Iris Gdn. 1968.
- *ROYAL HERITAGE (Walt Luhn, TB, R. 1967). Mission Bell 1968.
- ROYAL NAVY (Tom Craig, R. 1968). Sdlg. 7B84. TB, 36", M, W4B. S. white, faintly washed a tint of fall color especially toward midribs; F. deep regal to navy blue. Indiglow X (Mary McClellan x Whole Cloth).
- ROYAL RADIANCE (Arthur Hazzard, R. 1968). Sdlg. 682. Japanese sgl., 30", M, RV1Fcm. Rich red-violet, darker red-violet' veining on F.; ruffled; bright yellow signals; velvety sheen. Catherine Parry X unknown. Hazzard 1968.
- ROYAL SWAN (Bonnie Dunbar, R. 1968). Sdlg. 40-64-10. TB, 40", M, V4RVDDcm. S. full dark violet; F. royal black-purple narrowly edged full dark violet; small area around greenish-brown beard etched in blue-white; ruffled. Mary McClellan X Black Swan. HC 1967.
- *RUBY WINE (Ben Hager, Siberian, R. 1967). Melrose 1968.
- RUFFLED CHERUB (May Belle Wright, R. 1968). Sdlg. 66-11. BB, 22", M-L, W3. S. blue-white; F. warmer white; yellow beard. Miss Ruffles X Rippling Waters.
- *RUFFLED MAHOGANY (Carstensen, TB, R. 1967). Nick's Iris 1968.
- RUUSITA (John Neugebauer, R. 1968). Sdlg. LA-65-3. Louisiana, 42", E, BV1P. Violet-pink self. Twilight Mist X Nancy Ruth.
- *SAFFRON ROBE (Steve Moldovan, TB, R. 1966). Moldovan 1968.
- SAIDA CHANT (Dr. G. B. Loveridge, R. 1968). Sdlg. 64-8. BB, 26", M, Y1P. Cream self with yellow markings on F. Snow Flurry X Phoebus Apollo.
- SAIDA CHARM (Dr. G. B. Loveridge, R. 1968). Sdlg. W-5. Spuria, 36", E, W1cm. White self with large yellow signal. Unknown parentage.
- SAIDA LAKE (Dr. G. B. Loveridge, R. 1968). Sdlg. W-7. Spuria, 36", M, V1cm. S. violet-blue; F. violet with yellow veining. Ferguson 63-E X Banners of Blue.
- SAILOR TOGS (James Marsh, R. 1968). Sdlg. 67-30. TB, 32", M, BV1D. Navy blue (RHS 93A) self; ruffled; blue beard. Distant Hills sib X Distant Hills sdlg. HC 1968.
- SALLY KERLIN (Dr. Currier McEwen, R. 1968). Sdlg. 562/7A. Siberian, 27", M, B1F. Clear pale blue with slight lavender tone (RHS 94D) with small white blaze. White Swirl X Gray Dove.

- SANDILANDS (Jesse E. Wills, R. 1968). Sdlg. 15-63. TB, 37", M, Y05D. S. bright golden-brown; F. golden-brown overlaid bright rose-brown with light edge; gold beard. 58-58 X King's Mountain.
- SAN JOSE ROSE (Bernice Roe, R. 1968). Sdlg. 32A. TB, 36", M, RV1Lcm. Rich old rose self with blue blaze below yellow beard; brown thumbprints at hafts; ruffled. Pink Dresden X Judy Marsonette.
- SAN LEANDRO (Larry Gaulter, R. 1968). Sdlg. 65-52. TB, 36", M, RV1L. Light purple self; tangerine-red beard. 62-69 ((Fuchsia x Party Dress) x (Frost and Flame x sib)) x (Arctic Flame x sib)) X Rippling Waters. Cooley 1968.
- SAPPHIRE SHORE (Chet Tompkins, R. 1968). Sdlg. 64-4C. TB, 38", ML, B1L. Milky blue self; ruffled; self beard. Silver Song X Ribbon Round. HC 1967. Fleur de Lis 1968.
- *SARACEN WARRIOR (Mark Rogers, Arilbred, R. 1967). Sierra Vista 1968.
- SATAN, JR. (Les Peterson, R. 1968). Sdlg. LP 64-03. BB, 22-24", M-L, R1D. Medium cardinal crimson self, velvety smooth; dull yellow beard. Main Event X Utah Velvet. HC 1968.
- SATIN SOUND (Chet Tompkins, R. 1968). Sdlg. 64-68C. TB, 40", M-VL, VB1F. Violet-blue self; self beard. (Deep Space x Mountain Music) X (Salem x Fleet Admiral). Fleur de Lis 1968.
- *SAUCY SUE (J. M. Gibson, TB, R. 1967). Cooley 1968.
- #SAUSALITO (David Lorenz, TB, R. 1967). Name transferred to sdlg. 65-32.
- SAUSALITO (David Lorenz, R. 1968). Sdlg. 65-32. TB, 32-34", E-M, BV1L. S. blue-lavender, slightly lighter than F., slight pinkish tint, ruffled; F. blue-lavender, ruffled; light brown hafts, slight brushing, no haft marks; yellow beard tipped white. Amethyst Flame X Whole Cloth.
- SEA CAPTAIN (Schreiner's, R. 1968). Sdlg. V 170-A. TB, 36", ML, B1P. Very soft light silvery blue; bluish beard. R 613-A (((Bluebird Blue x K611-A (Jane Phillips x Cahokia)) x (Distance x Sylvia Murray))) X Galilee. Schreiner's 1968.
- SEAFOAM GREEN (Mable Framke, R. 1968). Sdlg. 65-F42. TB, 38", ML, GY1L. Seafoam green self, fluted; greenish gold beard. ((Char-Maize x Emerald Echo) x (Emerald Echo x Woodland Sprite)) X Aqualette. Fleur de Lis 1968.
- *SEE ME (Grace Carlson, MDB, R. 1963). Old Brook 1968.
- SEPIK DELTA (Dr. G. B. Loveridge, R. 1968). Sdlg. L-29. Spuria, 38", M-L, V4Ycm. S. violet; F. yellow with violet lines and 1/4" violet border. Ferguson 60-tan X Counterpoint.
- *SERGEANT CAMPOS (Charles Wm. Voris, TB, R. 1966). Voris 1968.
- *SEVEN LEAGUES (Steve Moldovan, TB, R. 1966). Moldovan 1968.
- SHADOW VALE (B. F. Blyth, R. 1968). TB, 36", M, V5P. S. smoky lavender, laced; F. smoky lavender with slightly deeper 1/4" band on edge; apricot beard. (Sultan's Robe x Rocket) X (Sky Ranger x Melody Lane).
- SHEER FASCINATION (W. A. Payne, R. 1968). Sdlg. 1122. Japanese single, 36", LM, RV3. S. mulberry purple; F. mulberry purple on light ground. Winged Chariot X Debonair Prince.

- SHEER GLAMOUR (W. A. Payne, R. 1968). Sdlg. 739. Japanese single, 49", E, V4Wcm. S. litho purple; F. white lightly stippled litho purple. 92F4 X 34F5.
- *SHILOH HILLS (David Rawlins, TB, R. 1964). Hill 1968.
- SHINING MOMENT (Jesse Wills, R. 1968). Sdlg. 14-65. TB, 33", EM, R1L. Shell pink self; yellow beard tipped white. 74-59 (20-54 x May Hall) X 8-63 (Spring Madrigal x Pink Shadows).
- SHINTO SHRINE (Steve Moldovan, R. 1968). Sdlg. 66-56A. TB, 34", EM, Y04Wcm. S. apricot; F. white bordered apricot; huge orange beard. My Jewel X Orange Chariot.
- SHIPSHAPE (Sanford Babson, R. 1968). Sdlg. Q46-11. TB, 38", M, B1. Medium blue self. Pacific Panorama X Epic. HC 1968.
- SHOW BIZ (Joseph Gatty, R. 1968). Sdlg. 66-1. TB, 38", M-L, B4PD. S. pale blue; F. dark blue. Allegiance X Whole Cloth.
- *SIERRA SPRING (Leo Clark, TB, R. 1967). Sierra View 1968.
- SILKIE (Ben Hager, R. 1968). Sdlg. M2003F. SDB, 12", E, V1D. Dark violet self; blue beard. Sib to Zing X Dark Fairy.
- SILVER ANNIVERSARY (Gladys Saxton, R. 1968). Sdlg. 66A7. TB, 48", M-L, B1P. Tailored silvery sky blue self; yellow beard. Blue Rhythm X unidentified sky blue iris.
- SILVER BOUNTY (Cora May Pickard, R. 1968). Sdlg. C-2610. TB, 36", ML, V3FD. Violet bitone. Sterling Silver X Blue Bounty. HC 1968.
- SILVER SHADOWS (Gordon Plough, R. 1968). Sdlg. 63-43-70. TB, 38", EML, V3LP. S. campanula violet (Wilson 37/2); F. campanula violet (37/3) with near white area around beard and center; beard white with each hair tipped nasturtium red (14/2), deepening in heart. Rippling Waters X 59-41-22 (Cloud Dancer x Whir of Lace).
- *SINABAR (Gerhard Carlson, TB, R. 1967). Eden Road 1968.
- SINGING RILL (Delora Smith, R. 1968). Sdlg. 67-6-7. TB, 38", M-VL, W1W. S. solid translucent white, heavily edged with lace; F. same, no marks, waved and laced; white beard. 56-1 (Helen McGregor x Chantilly) X Tompkins 58-197 (inv. Clara B. and Ruffled Gem).
- *SINGING SWORD (Richard Rosenfels, SDB, R. 1967). Old Brook 1968.
- SKATER'S WALTZ (Dorothy Palmer, R. 1968). Sdlg. 9265P. TB, 38", M, W1B. Cool white self; ruffled; beard white tipped pale lemon. 39-53C ((Faught White x Spanish Peaks) x sib) x Van Cliburn X Celestial Snow. HC 1968.
- SKEETER (Schreiner's, R. 1968). Sdlg. T 133-A. SDB, 14", E, Y1L. Primrose to light yellow self. Broadway Star X Carpathia. Schreiner's 1968.
- SKYBALL (James Tucker, R. 1968). Sdlg. 214A. TB, 36", M-L, W2B. White ground plicata, stitched blue; beard purple with yellow underneath. Full Circle X Rococo. Southern Meadows 1968.
- SKY BOLT (Alta Brown, R. 1968). Sdlg. M 1250-5. SDB, E, 12", B5L. S. light blue; F. light blue overlaid with green, deep color at haft and lighter toward edges; ruffled; blue beard. Blueberry Muffins X Snow Elf.

- SKY CLIPPER (Earl Roberts, R. 1968). Sdlg. SPWR-2. TB, 38", M, V4L. S. light orchid; F. rose-purple edged light orchid. Silver Peaks X Wine and Roses. HC 1968.
- *SKY KING (Patricia Craig, TB, R. 1966). Craig 1966.
- SKY REFLECTION (Dorothy Palmer, R. 1968). Sdlg. 39-65B. TB, 36", M, B1L. Light blue self; ruffled; beard white tipped pale yellow. Henry Shaw X Seaborne. HC 1968.
- *SLUMBER PARTY (B. Warburton, SDB, R. 1967). Warburton and Old Brook 1968.
- SMALL FAVOR (F. E. Hutchings, R. 1968). Sdlg. 62-190H. BB, 22", E, W4OP. S. white with infusion of pink at base; F. pink, orange beard. 59-3 (56-25 x Diehl 55:44) X 60-129H (Palomino x 58-80). HC 1965.
- SNOW CHERRIES (Wilma Greenlee, R. 1968). Sdlg. 66-30. IB, 20", M-IB, W2RV. White ground, rose-red plicata markings. Rimfire X Greenlee rose-pink (F₄ Cretica x Cherie). HC 1967. Greenlee 1968.
- SNOWLINE (Schreiner's, R. 1968). Sdlg. W 1016A. TB, 36", EM, W4OP. S. clear white; F. creamy pink; tangerine beard. R 37-E (3/D127 x N 28-1 (K18-B (I12-1 (Buffawn sdlg. x Cherry Flip) x Marlow Marvel) x L 275-A (I 638 (Pink Cameo x Pinnacle) x I43-C (Bright Song x Radiation) X R 38-M (3/D127 x O 1-1 (L 12-1 x L 275-A). Schreiner's 1968.
- SOFT MELODY (Mrs. F. Allen Brown, R. 1968). Sdlg. 63-112-A. TB, 36", M-L, Y01L. Deep apricot-peach self; ruffled; self beard. Rainbow Gold X (Bright Forecast x Fair Luzon). HC 1967. Landsend 1968.
- SOLAR GLEAM (Earl Roberts, R. 1968). Sdlg. 66R10. SDB, 13", E-M, Y1F. Brilliant yellow with slightly deeper spot on F; brilliant yellow beard. Rainbow Gold X pumila sdlg. (White Mite x Brownett).
- SOLEMN FAREWELL (W. A. Payne, R. 1968). Sdlg. 1344. Japanese, 40", LM, W4RVcm. Unusual form, ball-shape center; F. white lightly veined and sanded mulberry purple; S. and styles mulberry purple striped white. Debonair Prince X Mazuhono-kuni.
- SOMETHING BLUE (Chet Tompkins, R. 1968). Sdlg. 26H. TB, 38", ML, B1F. Medium blue self; ruffled and flaring. Mountain Music X Salem. Fleur de Lis 1968.
- SOMETHING BORROWED (Chet Tompkins, R. 1968). Sdlg. 63-23G. TB, 36", EM, W2V. White edged plicata flushed violet; ruffled. (Full Circle x Rosy Veil) X Dotted Swiss. Fleur de Lis 1968.
- SOMETHING NEW (Chet Tompkins, R. 1968). Sdlg. 65-55A. TB, 38", ML, O1P. Vivid baby ribbon pink self; pink beard. (Fancy Frosting x One Desire) X Luzon Crosby. Fleur de Lis 1968.
- SOMETHING OLD (Chet Tompkins, R. 1968). Sdlg. 63-37. TB, 38", ML, O5F. Blended orange flame and antique rose. Royanah X Donnybrook. Fleur de Lis 1968.
- SONG (Beatrice Warburton, R. 1968). Sdlg. 115K-1. SDB, 12", E-M, W4VP. S. near white shading to violet at heart, deep lavender at heart; F. pearly or smoky white, slight blending giving almost aqua look; lavender beard. 34H-1 ((Sdlg. Warb. (Blue Angel Wings x pumila x ivory, violet flush) x CC-309 (prob. AM-3 pumila) x Spanish Peaks)) X 9G-2 (sib to Blue Denim x C-309).

- SON OF STAR (Gordon Plough, R. 1968). Sdlg. 64-48-2. TB, 36", EML, YO1F. S. cadmium orange (Wilson 8/1) with slightly pinker glow in center; ruffled; F. cadmium orange at hafts blending to buttercup yellow (5/1) in center radiating from beard; marigold orange beard. Flaming Star X 59-232-13 (inv. Apricot Glory, Ballerina, Marilyn C, Palomino). HC 1968.
- SORCERER (Joseph Ghio, R. 1968). Sdlg. 65-150B. BB, 22", M, V5L. S. rosy tan on outside, lavender on inside; F. lavender with tan edge; beard lavender to tan. Commentary X Rippling Waters.
- SOU DE BRONZE (Jean Cayeux, R. 1968). Sdlg. 47-310 A. BB, 25", M-L, O5D. Glowing bronze self. Golden Blaze X (Cascade Splendor x Royal Sovereign). Cayeux 1967.
- SOUTHERN CHARM (James Tucker, R. 1968). Sdlg. 39. TB, 35", M-L, R5L. S. rose, lightly stitched blue around edge; F. rose overlaid yellow, lightly stitched blue around edge. Golden Masterpiece X Bright Forecast. HC 1968.
- SOUTHERN TRIUMPH (James Tucker, R. 1968). Sdlg. 31A. TB, 36", M, V1P. Lavender-pink self. Pretty Carol X 131A ((Lynn Hall x 953A (Mary Randall x Constant Comment))). HC 1968.
- *SPANGLED ORGANZA (Chowning, La., R. 1961). University Hills 1966.
- SPANISH EYES (Herbert Spence, R. 1968). Sdlg. 62-7-4E. TB, 34", M, V1D. Dark violet self; self beard. Licorice Stick X Emma Cook.
- SPANISH LACE (Eva Smith, R. 1968). Sdlg. 66-42. TB, 34", M, V1P. Clear orchid self; heavily laced; lemon beard. Rippling Waters X Lovely Lettie.
- *SPARKLE BRITE (Dorothy Guild, MTB, R. 1966). Guild 1968.
- *SPARKLING CLOUD (David Sindt, SDB, R. 1967). Riverdale 1968.
- *SPARKLING ROSE (Ben Hager, Siberian, R. 1967). Melrose 1968.
- *SPECKLES (B. Warburton, SDB, R. 1967). Warburton and Old Brook 1968.
- SPECTRAL STUDY (Charles Wm. Voris, R. 1968). Sdlg. B65-49. TB, 36", M-L, Y5. Light to medium yellow, bright with blend of many colors; beard yellow to orange. 63/51 X Lucky Lady.
- *SPICED COFFEE (John Holden, Oncocyclus hybrid, R. 1967). Holden 1968.
- SPIRIT OF SHADOW (W. A. Payne, R. 1968). Sdlg. 919. Japanese single, 40", E, V1Lcm. Light mallow purple, hortence violet halo, dark spot on signal patches. Debonair Prince X 754.
- *SPRING ANTHEM (Les Peterson, Arilbred, R. 1967). Tell 1968.
- *SPRING COMET (Hite, TB, R. 1965). Hite 1965.
- *SPRING LAUGHTER (Alta Brown, SDB, R. 1967). Brown's Iris Gdn. 1968.
- *SPRING LYRIC (Dorothy Palmer, TB, R. 1967). Palmer 1968.
- SPRING MIRROR (George W. Dubes, R. 1968). Sdlg. D64-13-1. TB, 35", M, B1F. Medium blue self; near white beard. Spring Echo X Branch 6244.
- SPRING SOON (Joseph Sikora, R. 1968). Sdlg. 63-101. TB, 36", EM, BV1F. Violet-blue self, lighter around blue beard. Snow

Flurry X Sea Master.

SPRING SUNDAE (Mrs. John Hardy, R. 1968). Sdlg. 3A2-A7. TB, 40", M, W40. S. white; F. clear light orange-pink; red beard. From two pink amoena lines inv. Ranger, Pink Cameo, sib to Salmon Shell, Pink Fulfillment, flamingo sdlg., China Gate, Burgundy Rose, Lavender Mist, etc.

*STAR BEAM (Bennett Jones, BB, R. 1967). Jones 1968.

STAR TREK (Chet Tompkins, R. 1968). Sdlg. 64-137. TB, 40", ML, Y1Fcm. Gilt yellow self with white area on F; heavily ruffled. Arpeggio X Buttercup Bower. Fleur de Lis 1968.

STATUS SYMBOL (Sanford Babson, R. 1968). Sdlg. R68-10. TB, 36", M, Y4VL. S. light yellow; F. blended lavender, blue and gold. Apropos X P100-2 (Apropos sib x Star Gazer). HC 1968.

STEVEN DEAN (Mrs. J. W. Berndt, R. 1968). Sdlg. 42-76. TB, 36", M, VB1. Violet-blue self; blue beard tipped yellow; ruffled. Pacific Panorama X Rippling Waters.

STORMY ECHOES (Ellen Crouch, R. 1968). Sdlg. 66-A-3. TB re., 34", E & re., BV4RVcm. S. light violet (Munsell 2.5P 5/8); F. red-violet (10P 3/9) with sunburst of white striations on haft; white beard, yellow in throat. Beau Catcher X Nappanee.

STRANGE MAGIC (Gordon Plough, R. 1968). Sdlg. 64-22-9. TB, 30", EM, B1P. S. French blue (Wilson 43/3) at tips blending to hyacinth (40/2); F. French blue with blended center stripe of hyacinth blue below beard; beard gentian blue (42/1) with frosty tips on each hair, blending to mustard deep in throat. Smoke Screen X Soft Sky.

STRANGE MUSIC (Mrs. John Hardy, R. 1968). Sdlg. 67-A-6. TB, 48", M, RV3LDcm. S. lavender; F. burgundy, orange-brown wash on hafts; orange-brown beard. From two pink amoena lines inv. Ranger, Pink Cameo, sib to Slamon Shell, Pink Fulfillment, flamingo sdlg., China Gate, Burgundy Rose, Lavender Mist, etc.

STRIPES (Frances Finney, R. 1968). Sdlg. 57-4. TB, 36", M, W2B. S. dark blue; F. white with blue edge and blue stripes. Masked Ball X Port Wine. Finney 1968.

STRONGBOW (A. C. Howe, R. 1968). Sdlg. 5/72a. TB, 38", EM, Y05L. Yellow and apricot blend; tangerine beard. Marilyn C X Mission Sunset.

STROPHE (Jesse Wills, R. 1968). Sdlg. 5-62. TB, 35", M, R1L. Shell pink self; soft tangerine beard. Pink Shadows X 61-56.

*STUDY IN BLACK (Gordon Plough, TB, R. 1967). Eden Road 1968.

*SUDDEN BEAUTY (Leo Clark, Arilbred, R. 1967). Sierra View 1968.

*SUMMER BUTTERSCOTCH (G. Percy Brown, TB & RE., R. 1967). Brown's Everblooming 1968.

*SUMMER DARKNESS (G. P. Brown, TB & Re., R. 1967). Old Brook and Brown's Everblooming 1968.

*SUMMER DAWN (Z. G. Benson, TB, R. 1967). Z. G. Benson 1968.

*SUMMER JANEWAY (G. Percy Brown, TB & Re., R. 1967). Old Brook and Brown's Everblooming 1968.

SUNDAY SAILOR (Delora Smith, R. 1968). BB, 26", E-M, Y5L. S. honey yellow blending to lilac at edges; F. lilac blending to honey yellow at heart; beard, hafts and styles honey yellow.

- (Lavender Mist x Dreamcastle) X (Lavender Mist sib x Dreamcastle).
- *SUNLIT (J. M. Gibson, TB, R. 1967). Cooley 1968.
- SUNLIT TRAIL (Alta Brown, R. 1968). Sdlg. M 826-9. SDB, 13", E, Y1F. S. canary yellow (Wilson 2/1); F. canary yellow (2); lightly laced and ruffled; light blue beard. Easter Holiday X M 271 (yellow with blue beard).
- *SUNRISE BUTTERCUP (Dr. F. Judy, SDB, R. 1967). Old Brook 1968.
- SUNRISE RIM (Gordon Plough, R. 1968). Sdlg. 62-117-10. TB, 32", ML, Y4Wcm. S. closest to aureolin yellow (Wilson 3/2), only more orange with faint pink glow in center; F. pure white with 1/4" band widening to 3/8" at tip, same color as S; beard cadmium orange (8), slightly lighter at tip. 59-169-36 (Pianissimo x Mayberry 56-9-1) X 55-54-4 (Kachina Doll sib).
- *SUNSET SHADOWS (Bernice Roe, TB, R. 1967). B. Roe 1968.
- SUNSET SKY (Bernice Roe, R. 1968). Sdlg. 32A-2. TB, 36", M, Y4RVcm. S. empire yellow (603/1); F. phlox purple with rosy flush (632/2), edged yellow-tan around edge; deep yellow beard. Pink Dresden X Judy Marsonette. HC 1968.
- *SUN SPARKLE (David Sindt, MDB, R. 1967). Riverdale 1968.
- *SUN SYMBOL (Bennett Jones, SDB, R. 1964). Jones 1968.
- SUN TEMPLE (James Marsh, R. 1968). Sdlg. 67-51. TB, 36", E, Y1L. Light yellow self with white spot below orange beard; very ruffled. Prairie Sun X Kingdom. HC 1968.
- SURF BEACH (Dr. G. B. Loveridge, R. 1968). Sdlg. L-10. Spuria, 58", E-M, Y1. Yellow self. Wadi Zem Zem X Ferguson 55-2.
- SURPRISE PATTERN (Tom Craig, R. 1968). Sdlg. 7D27. TB, 36", M, Y4RV. S. banana; F. coronation purple; rich ochre beard. Zulu Warrior X (Orchid and Flame x Melodrama). Craig 1968.
- *SURPRISE SURPRISE (F. R. Judy, TB, R. 1966). Eden Road 1968.
- *SUVA (Gordon Plough, TB, R. 1967). Eden Road 1968.
- SWAMI (Joseph Ghio, R. 1968). Sdlg. 63-139Z. BB, 24", ML, Y4Bcm. S. grayed yellow; F. blue, etched grayed yellow. Wizard sib X (Pretty Quadroon x Frosted Starlight).
- SWANK (Ben Hager, R. 1968). Sdlg. SB-9. Siberian, 32", M, B1D. Deep blue self, little signal. White Swirl X Blue Cape. HC 1968.
- SWEETBRIAR ROSE (Delora Smith, R. 1968). Sdlg. 66-1-A. BB, 26", E-M, O1P. Coral pink self; hafts yellow washed; coral beard. ((Pink Cameo x Cloudcap) x Pink Enchantment) X ((Pink Cameo x Cloudcap) x Pink Enchantment) - sib to pod parent.
- *SWEETHEART AT TEA (Charles Wm. Voris, TB, R. 1966). Voris 1968.
- SWEET HELEN (Alean Kemp, R. 1968). Sdlg. 68-497. MTB, 25", M, VB1Lcm. Lavender-blue self with violet blending over F, leaving a white edging. Eversweet X lavender sdlg. Kemp 1968.
- *SWEET LORRAINE (Gordon Plough, TB, R. 1967). Eden Road 1968.
- SYMPHONETTE (Luella Noyd, R. 1968). Sdlg. N67-57-23. TB, 34", M-L, RV1L. Light rose self with orchid in center of F; tangerine beard; slightly lacy S. and styles. Debby Rairdon X Kingdom.

- SYRIAN MOON (Roy Brizendine, R. 1968). Sdlg. B-8-64. Arilbred, 22-26", E-M, W4Y. S. ruffled white, flushed yellow at midrib, deep yellow styles; F. clean medium yellow; black signal; gold beard. Wilkes sdlg. (G.M. 6 x Salah 3-6) X B-4-62 (Gul. Mid. 10 x Salah).
- TABLE WARE (Tell Muhlestein, R. 1968). Sdlg. 258. MTB, 24", EM, V1L. Wisteria violet self; yellow beard. First Lilac X Merry Lynn. Tell 1968.
- TAHITIAN BRONZE (Schreiner's, R. 1968). Sdlg. W 521-C. TB, 40", ML-L, O5Dcm. Copper-tan brown with prominent blue penciling in center of F. Brass Accents X L 33-B (Halolight x Inca Chief). Schreiner's 1968.
- TALKS TO YOU (Alean Kemp, R. 1968). Sdlg. 68-496. MTB, 26", M, W2V. White ground plicata stitched and dotted violet; bright deep yellow beard. Midwest Gem X Widget. Kemp 1968.
- #TAMBOURINE (Sanford Babson, TB, R. 1955). Name transferred to Sdlg. P108-2.
- TAMBOURINE (Sanford Babson, R. 1968). Sdlg. P108-2. TB, 32", M, Y4RV. S. bright gold-tinged yellow; F. blend of plum blue and garnet. Apropos X unknown. HC 1968.
- *TANGERINE TANGO (Sheaff, BB, R. 1965). Moldovan 1968.
- *TANGLEWOOD (Dr. C. C. Hall, TB, R. 1967). Orpington 1968.
- TAN SUN (Margaret Burnett, R. 1968). Sdlg. BB-63-1. TB, 34", M, Y2YO. S. tan with yellow infusion near midribs; F. tan with yellow markings. My Honeycomb X Cayenne Capers. Melrose 1968.
- *TARNISHED BRASS (Chowning, La., R. 1961). University Hills 1966.
- TAXCO JEWEL (Tom Craig, R. 1968). Sdlg. 7B7-1. TB, 36", M, B4RV. S. gull gray; F. amethyst with lilac sheen. Bacchus X Whole Cloth. Craig 1968.
- TECATE (Glenn Corlew, R. 1968). Sdlg. 235-5A. BB, 22-24", E-M, W2V. S. white, sanded rosy-violet; F. white edged with stitching of rosy-violet; white beard. Taholah X Memphis Lass. Cherry Lane 1968.
- *TEKO (Z. G. Benson, IB, R. 1967). Mission Bell and Benson 1968.
- TEL HASHI (W. G. Kellie, R. 1968). Sdlg. O 58-2A. Aril hybrid, 16", E, W50D. S. white heavily veined dark chocolate brown, tips washed deeper; F. white washed and veined chocolate brown, tips and styles deeper brown; old gold beard. I. acutiloba X unknown.
- TENNESSEE WALTZ (H. W. Neubert, R. 1968). Sdlg. 16-65A. TB, 34", L-M, V1L. Orchid-lavender self; heavily ruffled; yellow beard tipped white. Lavish Lady X Rippling Waters.
- *TEX-O (Z. G. Benson, IB, R. 1967). Mission Bell & Benson 1968.
- THEATRE ARTS (Herbert Spence, R. 1968). Sdlg. 64-33-7A. TB, 34", M, VB3PF. S. pale violet-blue with deeper infusion at base; F. medium violet-blue; tangerine beard. 62-2-4E (Miss Indiana x Rippling Waters) X Rippling Waters.
- *THREE GRACES (Ferris Gaskill, TB, R. 1966). Greenbrier 1968.
- *THRESHOLD (Mrs. J. R. Hamblen, TB, R. 1967). Mission Bell 1968.
- TIBETAN TREASURE (Lloyd Zurbrigg, R. 1968). TB, 37", M-VL, W4B. S. white with pale blue and green infusion; F. white, hafts brownish green; light halo of this color extends around F; brown-green beard. Unknown parentage. Avonbank 1968.
- TIDDLEYWINK (Helen Reynolds, R. 1968). Sdlg. D 7-67. MDB, 8",

- L, W1Bcm. S. white; F. white with dime-sized blue spot in center. D1-58 (Green Spot sdlg.) X Heart's Content. El Dorado 1968.
- *TIGER BLAZE (David Sindt, SDB, R. 1967). Riverdale 1968.
- *TIGER DOINGS (Dorothy Guild, MTB, R. 1967). Guild 1968.
- *TIGER TERRITORY (Dorothy Guild, MTB, R. 1967). Guild 1968.
- *TIGRESS (Kathryn Van Dexter, TB, R. 1967). Maple Croft 1968.
- TIME AND TIDE (Fred Maddocks, R. 1968). Sdlg. M732. Japanese, 40", M-L, W1Vcm. White self with wide border of deep violet. From two Maddocks sdls. Melrose 1968.
- TIMELESS (Larry Harder, R. 1968). Sdlg. 1. Siberian, 28", M, B1D. Dark blue self. Unknown parentage.
- TINTS (Tom Craig, R. 1968). Sdlg. 7B104. TB, 32", ME, Y4RV. S. chartreuse-buff; F. lilac. Feza X Melodrama. Craig 1968.
- TINY TINK (Mrs. Lucy Delany, R. 1968). Sdlg. 66-53. MDB, 5", M, B1Lcm. Blue self, deeper veined halo around cream-orange beard. Blue Denim X I. pumila.
- *TIPPY (Alta Brown, SDB, R. 1967). Brown's Iris Gdn. 1968.
- *TOMKI (Maynard Knopf, TB, R. 1967). Top O' The Ridge 1968.
- *TOMTEBO (Lavone Ney, TB, R. 1967). Ney 1968.
- TONJA CHERYL (Harry Riggs, R. 1968). Sdlg. 1-G-7. TB, 36", M, Y3Fcm. S. sulphur yellow; F. white in center edged sulphur yellow with yellow haft. Freedom Festival X Palomino.
- TOPAZ GEM (Romona Blodgett, R. 1968). Sdlg. 67-37. TB, 36", ML, Y5F. Golden buff with blending of rose on F. Sib of Apollo's Gift X Indian Fringe. HC 1968.
- TOP BILLING (Jeannette Nelson, R. 1968). Sdlg. 65-16-1. TB, 38", ML, W1. White self; long, wide, very red beard. Ruby Lips X Gaily Clad.
- TRALEE (Glenn Corlew, R. 1968). Sdlg. 302-5A. TB, 32-34", M-L, R1P. S. rose pink; F. same, lighter at center; tangerine-pink beard. Arctic Flame X Graduation Gift. HC 1968.
- TREND (William Newhard, R. 1968). Sdlg. 716-1. SDB, 11", E-M, G3. S. sky green (RHS 146D); F. olive (152B); violet-blue beard. Zing X Grace Note.
- TREVOSE (William Meyer, R. 1968). Sdlg. MU 72. TB, 36", M, W40. S. oyster; F. greyed orange (RHS 164B); tangerine-red beard. Palomino X (Pink Formal x Melody Lane) x (June's Sister x Muhlestein 50-6 x 51-13) x Meyer pink sdlg.
- *TROPIC TOUCH (Gordon Plough, TB, R. 1967). Eden Road 1968.
- TULE QUEEN (Hilda Fail, R. 1968). Sdlg. F-2-9. TB, 36", M-L, RV4Y. S. rose (Wilson 628/2); F. ivory, rose wash deepening at edge. Easter Egg X Ballerina. Hilda's Iris 1968.
- *TURKISH TRACERY (Doris Foster, Arilbred, R. 1967). Tell 1968.
- TURKISH TREASURE (Steve Moldovan, R. 1968). Sdlg. 66-24P. TB, 35", M, RV5L. Orchid-rose blend, tan highlights in laced and crimped edge; reddish orange beard. Flaming Heart X Irish Lullaby.
- TURNING POINT (Mrs. John Hardy, R. 1968). Sdlg. 68-A-2. TB, 40", M, W40. S. white; F. bright light orange-pink; red

beard. From two pink amoena lines inv. Ranger, Pink Cameo, sib to Salmon Shell, Pink Fulfillment, flamingo sdlg., China Gate, Burgundy Rose, Lavender Mist, Spindrift, Pink Formal, Broadway Star.

- *TUSSAH SILK (H. W. Neubert, TB, R. 1967). Neubert 1968.
- *TUXEDO (Schreiner's, TB, R. 1964). Schreiner's 1965.
- *TWILIGHT MIST (Neugebauer, La., R. 1964). University Hills 1966.
- *TWILIGHT SONG (Alta Brown, IB, R. 1966). Brown's Iris 1968.
- TWO PRETTY (Loleta Powell, R. 1968). Sdlg. 66-55. TB, 36", M-L, O4R. S. pale pink; F. deep rose; yellow beard. Broadway Star X pink sdlg.
- *TYCOON'S GOLD (O. D. Niswonger, TB, R. 1967). Top O' The Ridge and Cape Iris 1968.
- TYRIAN ROBE (Dr. C. C. Hall, R. 1968). Sdlg. S 15/7. TB, 36", M, V1F. Violet-purple self. Redbourn X U178 (Fothergill).
- *ULTRALURE (J. M. Gibson, TB, R. 1967). Cooley 1968.
- *VALLEY BANNER (Hardy, I. tenax-chrysophylla hybrid, R. 1958). Siskiyou 1968.
- VAUDEVILLE (Keith Keppel, R. 1968). Sdlg. 64-37B. TB, 36", M, Y4V. S. buff cream (near M&P 9-C-2); F. light violet (43-7-F) washed aconite violet (44-I-7), paler texture veining, sprayed white haft pattern. Siva Siva X Diplomacy. HC 1968.
- VANTAGE POINT (Mrs. John Hardy, R. 1968). Sdlg. 68-D-1. TB, 40", M, R1D. Bright cherry-red self, gold washed hafts; orange-brown beard. From red lines inv. Ranger, Orelia, Big-time, Tall Chief, Checkmate, Brigadoon.
- VENETIAN WALTZ (George Hinkle, R. 1968). Sdlg. X-5-10. TB, 32", B1F. S. deepest wisteria blue (Wilson 640), ruffled; F. same, ruffling and pleating extending to haft, blue band down center; wide, white beard. Eve X Dear Bob. HC 1968.
- VERINOVEL (Tom Craig, R. 1968). Sdlg. 7BG27-32. TB, 34", M, O4RV. S. rose amber blended orange and rose on midribs; F. blended colonial rose; rose-violet bloom over whole F. Oro Fino X (Melodrama x Glittering Amber).
- VICKY MARIE (Katie Carstensen, R. 1968). Sdlg. C.4.68. TB, 36", M, O1P. Peach-pink self; beard light yellow tipped white. (Pink Formal x May Hall) X Call Me Madam.
- VIGNETTE (Steve Moldovan, R. 1968). Sdlg. 2-67E1. SDB, 10", E, Y3PF. S. cream (RHS 4D); F. greenish yellow (7A); violet-blue beard. Nylon Lovliness X Grace Note. Moldovan's 1968.
- *VIOLET GLOW (Bion Tolman, TB, R. 1966). Tell 1968.
- VITAFIRE (Schreiner's, R. 1968). Sdlg. W 395-A. TB, 34", M, R1D. Light silken rose-red approaching cherry red; brown beard. Tomeco X Gypsy Jewels. HC 1967. Schreiner's 1968.
- *VIVA (George Shoop, TB, R. 1967). Shoop 1968.
- *WALKING HAPPY (Carstensen, TB, R. 1967). Nick's Iris 1968.
- WANDERING WIND (Helen Reynolds, R. 1968). Sdlg. 13-66. TB, 32",

- M-L, B4W. S. light blue, deeper at midrib and base; F. white. 131-63 ((Sea Master x Wide World) x sib)) X 57-218 (Wide World x sdlg.) HC 1967. El Dorado 1968.
- *WAR LORD (Schreiner's, TB, R. 1967). Schreiner's 1968.
- WARRIMOO (Dr. G. B. Loveridge, R. 1968). Sdlg. L-4. Spuria, 36", L, V4Ycm. S. violet; F. yellow with violet lines. Ferguson 60-tan X Counterpoint.
- *WATERCOLOR (Earl Roberts, SDB, R. 1967). Roberts and Moldovan 1968.
- WATER SPRITE (Mrs. D. Hansford, R. 1968). Siberica, 36", L, RV3PLcm. S. pale mauve; F. deeper mauve, speckled. Charm of Finches X unnamed sdlg.
- WATTAFLARE (Charles Wm. Voris, R. 1968). Sdlg. Orch 68-10. TB, 28-34", M-L, V1P. Tailored orchid-pink self; orange beard. May Magic X 58/21.
- WEBSPUN (Tom Craig, R. 1968). Sdlg. 7F18. TB, 34", ME, V1Lcm. S. plumbago gray; F. plumbago gray and wistaria with all over deeper veining. (Riptide x Striped Butterfly) X (Striped Buterfly x Toll Gate).
- *WEST COAST (Maynard Knopf, TB, R. 1966). Top O' The Ridge 1968.
- WESTERN APPROACHES (A. C. Howe, R. 1968). Sdlg. 5/58a. TB, 36", EM, VB1. Cornflower blue self. Northbrook X Allegiance.
- #WESTERN HOST (Ben Hager, TB, R. 1966). Transferred to sdlg. P22-15.
- WESTERN HOST (Sanford Babson, R. 1968). Sdlg. P22-15. TB, 40", M, RV1F. Medium violet-purple self; ruffled; self beard. Goodness X M94-13 (Commentary x Melodrama). Melrose 1968.
- *WESTWIND SORCERY (Mrs. John Hardy, I. innominata, R. 1966). Siskiyou 1968.
- WHATZIT (Ben Hager, R. 1967). Sdlg. AB2005A. Arilbred, 20", E, Y1Fcm. Yellow self with large red spot or signal below beard. Rickshaw X Imam Salah.
- WHIRLING DERVISH (Steve Moldovan, R. 1968). Sdlg. 66-19C. TB, 36", E, W1Ycm. S. white bordered lemon yellow; F. ruffled white, yellow hafts with band only at bottom; red beard. Fay 62-14 ((Esther Fay sib x New Arrival) x Morning Breeze)) X 63-1 (New Arrival x One Desire).
- WHISPERING GLADE (Joseph Ghio, R. 1968). Sdlg. 65-176V. TB, 38", EML, YG1F. Green-gold self; ruffled. Moon River X 60-49D (Pretty Quadroon x Frosted Starlight).
- *WHISPERING SHADOWS (A. C. Howe, TB, R. 1966). Orpington 1968.
- *WHISPERING SPRITE (Dorothy Guild, MTB, R. 1966). Guild 1968.
- *WHITE CAPE (Kitton, Siberica, R. 1964). Orpington 1968.
- *WHITE CAPRICE (Goodrick, TB, R. 1967). Goodrick 1968.
- WHITE FAVOR (Tom Craig, R. 1968). Sdlg. W34-1. TB, 38", ME, W1W. White self; ruffled. Frieda's Favorite X Symphony. Craig 1968.
- *WHITE FORMAL (Margaret Beck, TB, R. 1967). Misty Hills 1968.
- *WHITE HARMONY (Kuesel, TB, R. 1965). Old Brook 1968.

- *WHITE HORSES (Kitton, Siberica, R. 1964). Orpington 1968.
- WHITE LIE (Tom Craig, R. 1968). Sdlg. 7WB 11. BB, 16", M, W1W. Pure white self. Broadmeadow X white TB sdlg. related to Patricia Craig.
- *WHITE PINE (Carl and Mable Bacon, TB, R. 1966). Pine Shadows 1968.
- WHITE SPOT (Tom Craig, R. 1968). Sdlg. 7B80-1. TB, 32", ME, W4V. S. white; F. aster with white around beard. Toll Gate X Emma Cook. Craig 1968.
- WHOLE PACIFIC (Lloyd Zurbrigg, R. 1968). Sdlg. 60-93-A. TB, 36", ML, B1. Gentian blue self. South Pacific X Whole Cloth.
- WIDEACRES ROSE (Lys Housley, R. 1968). Sdlg. Q-77-C. TB, 33", EML, RV5L. Blended rose self; ruffled; tangerine beard. VW89 (Aleppo Plain x Maroon Damask) X VU151B (Raspberry Ice Cream x June's Sister).
- WILD WAVES (John Baldwin, R. 1968). Sdlg. 65-29A. TB, 36", E, W3. S. white; F. white, tinged green, very ruffled; pale yellow beard. Satin Ripples X Winter Olympics.
- *WILDWOOD FANTASY (Mrs. John Hardy, I. innominata, R. 1966). Siskiyou 1968.
- *WILDWOOD GARLAND (Mrs. John Hardy, I. innominata, R. 1966). Siskiyou 1968.
- *WILLOW WISP (Joseph Ghio, TB, R. 1966). Bay View and Old Brook 1968.
- WIND MELODY (Elizabeth Pike, R. 1968). TB, 28-30", M, V1F. Violet self with white area around beard; waved and ruffled; orange beard tipped white. Blue Debut X Harbor Blue.
- *WIND RHYTHM (Luella Noyd, TB, R. 1966). Noyd 1968.
- WINTER DREAMS (William Newhard, R. 1968). Sdlg. 699-1. TB, 38", EML, W1W. White self; white beard. Brave Viking X Winter Olympics.
- *WISCONSIN HERITAGE (C. Protzmann, TB, R. 1967). Protzmann 1968.
- *WOODWIND (Ben Hager, Spuria, R. 1967). Melrose 1968.
- *XANADU (Philip Edinger, TB, R. 1967). Melrose 1968.
- YAMPA VALLEY GOLD (Sue McLane, R. 1968). Sdlg. H61-1-2. TB, 29", M, Y3Fcm. S. gold; F. old gold, flushed fuchsia, gold line length of F; wide tangerine beard. Unknown parentage.
- *YELLOW SAILS (Granger, Louisiana, R. 1965). Granger 1968.
- *YOUNG LOVE (Hazel Schmelzer, SDB, R. 1966). Schmelzer 1968.

REGISTRANTS AND THEIR REGISTRATIONS
INTRODUCERS AND THEIR INTRODUCTIONS

Iris registered in 1968 are set in capitals after the name of the hybridizer. Irises introduced in 1968 are set in lower case after the name of the introducer. For purposes of this list, garden names are considered different from the hybridizer, even if the same person. Irises both registered and introduced by the same hybridizer in 1968 are set in capitals and underscored.

AVONBANK GARDENS, 903 Tyler Avenue, Radford, Va. 24141.
Centennial Gold, Lace Negligee, Tibetan Treasure

BABSON, SANFORD L., 35107 Road 180, Visalia, California 93277.
ALCALDE, PANTOMINE, SHIPSHAPE, STATUS SYMBOL, TAMBOURINE,
WESTERN HOST

BAILEY, R. H., 45 Cottesmore Ave., Barton Seagrave, Kettering,
Northants, England.
AFTER SUNDOWN, CHA-CHA, OCEAN CLIPPER

BAKER'S ACRE, 7650 West 4th Ave., Denver, Colorado 80226.
Hello Dolly

BAKKE, MRS. O. A. for Bakke-Messer, 5145 Golden Valley Road,
Minneapolis, Minnesota 55422.
MINNESOTA FRILLS, MINNESOTA GARNET

BALDWIN, JOHN O., 31 Schutt St., Newport, Victoria 3015,
Australia.
WILD WAVES

BARRERE, WILLARD H., 800 Wye Road, Akron, Ohio 44313.
MAIDEN VOYAGE

BAY VIEW GARDENS, 1201 Bay St., Santa Cruz, California 95060.
Celebration, Haunting Rhapsody, Junior Prom, Penthouse,
Willow Wisp

BENSON, Z. G., 2211 Denver, Wichita Falls, Texas 76301.
Drifting Sands, Summer Dawn, Teko, Tex-o

BERNDT, MRS. J. W., 4330 Cleveland Ave., Stevensville, Michigan
49127.
HOLLY KAY, STEVEN DEAN

BERNDT'S GARDEN, 4330 Cleveland Ave., Stevensville, Mich. 49127.
Birthright, Gay Bouquet, Girl Friend, Paper City

BIERMAN, MRS. JOHN, Battle Creek, Nebraska 68715
MARY B.

BLODGETT IRIS GARDENS, 1008 Broadway, Waukesha, Wisc. 53186.
Apricot Drift, Gala Rose, Indian Fringe

BLODGETT, MRS. ROMONA A., 1008 East Broadway, Waukesha, Wisc.
TOPAZ GEM

BLYTH, B. F., Sunnyside Gardens, Spring Road, Springvale,
Victoria 3171, Australia.
PACIFIC REALM, SHADOW VALE

BLYTH, C. J., Sunnyside Gardens, Spring Road, Springvale,
Victoria 3171, Australia.
CAPRI GIRL, CREAM RHAPSODY, QUIET SOLILOQUY

BRISCOE, H. E., Route 1, White Hall, Illinois 62092.
BRASS BUTTONS

BRIZENDINE, ROY, 2214 Maryland Ave., Topeka, Kansas 66605.
SYRIAN MOON

BROWN, BOB, 3 Kerr Avenue, Kensington, California 94707
CARO NOME

BROWN, MRS. F. ALLEN, 4326 Grandin Road Ext., Roanoke, Va. 24018.
AFTER IMAGE, BROKEN CHORD, LOWER LIGHTS, SOFT MELODY

BROWN, MRS. JOHN T. (Czarina), 1706 W. Cherry St., Marion, Ill.
62959.
CHANETTA

BROWN, MRS. REX (Alta), 12624 84th Ave., N.E., Kirkland, Wash.
98033.
BLACK BIT, BLUE VISION, BRIGHT IDEA, CHARM SONG, DOLL HOUSE,
DUSKY BLUEBEARD, GYPSY SMOKE, LILAC LILT, MINI-PLIC, OLIVE
COCKTAIL, ORANGE RIOT, PINK REVERIE, SKY BOLT, SUNLIT TRAIL

BROWN, REX P., 12624 84th Ave., N.E., Kirkland, Wash. 98033.
EMINENCE, EXULTATION, GALA AFFAIR, IVORY FLUTE, LOVELY
BALLERINA, PEACH RIM, RIPPLING SEA

BROWN'S EVERBLOOMING IRIS GARDENS, Broad St., Barre, Mass. 01005.
Summer Butterscotch, Summer Darkness, Summer Janeway

BROWN'S IRIS GARDENS, 12624 84th Ave., N.E., Kirkland, Wash.
Angel Music, Bamboo Curtain, Blue Secret, Constant Love,
Dainty Dove, Dashing Deb, Elegant Charm, Fashion Fare,
Frosted Cream, Happy Hour, Happy Mood, Little Sunbeam, Mystic
Maid, Navy Doll, Red Pixie, Rose Harmony, Royal Fairy, Spring
Laughter, Tippy, Twilight Song

BROWN'S SUNNYHILL GARDENS, Route 4, Box 26, Walla Walla, Wash.
99362.
Bright Shield, Carillon Festival, Cheerfulness, Evening
Breeze, Light Fantastic, Peek A Boo

BROWN, MRS. TOM. M. (Opal), Route 4, Box 26, Walla Walla, Wash.
ALLURA, BRIGHT SHIELD, BUFFY, CHEERFULNESS, CORAL GLOW,
EVENING BREEZE, GREENSLEEVEES, LIGHT FANTASTIC, PINK MAGNOLIA

BRUMMITT, LEONARD W., 30 Bloxham Road, Banbury, Oxon, England.
MAUVE DRIFT

BRUMMITT, MRS. L. W. (Marjorie), 30 Bloxham Rd., Banbury, Oxon,
England.
BUTTERMILK FAIRY, CRIMSON CUSHION, LIMEHEART, NO NAME, PENNY
PINK

BUCKLES, EUGENE, 535 Kathleen Ave., Sikeston, Missouri 63801.
DAWN'S PROMISE, EMMA LOUISA, GOLDEN DRESS

BUCKLES IRIS GARDEN, 535 Kathleen, Sikeston, Missouri 63801.
Celestial Dawn, Mister Rhett, Olympic Kate

BURNETT, MRS. SAM (Margaret), 2737 32nd Ave., Sacramento, Calif.
95824.
TAN SUN

CAPE IRIS GARDENS, 822 Rodney Vista Blvd., Cape Girardeau, Mo.
63701.
Tycoon's Gold

CAPETILLO, SAMUEL A., 2034 Cabot, Detroit, Michigan 48209.
COTTON PICKER

CARLSON, MRS. BERYL L., 109 N. Waverly Place (Apt. C), Kenne-
wick, Washington 99336.
CUBAN BELLE, ORANGE ICING

CARSTENSEN, MRS. KATIE, 1327 Hayes Ave., Norfolk, Nebr. 68701.
MONTE M, VICKY MARIE

CASSEBEER, F. W., 414 Strawtown Road, West Nyack, N. Y. 10994.
CLEAR POND

CAYEUX, JEAN, Poilly-Lez-Gien, Loiret, France
FANTAISIE, OPERETTE, SOU DE BRONZE

CHERRY LANE GARDENS, 2988 Cherry St., Walnut Creek, California
94596.
Cherub Choir, Franciscan Friar, Tecate

COE, R. H., Cold Norton, Essex, England.
GERALD DARBY, GOLDENA

COME 'N' LOOK GARDENS, Declo, Idaho 83323.
Carnival of Roses, Chief Washakie, Dawn's Harbinger,
Raspberries on Ice

COOK, MRS. PAUL H., Rural Route 4, Bluffton, Indiana 46714.
NIGHT TIME. Miss Teenage

COOLEY'S GARDENS, Silverton, Oregon 97381.
Cataldo, Elegant Farmer, Golden Lark, Normandie, Orinda,
Pacifica, San Leandro, Saucy Sue, Sunlit, Ultralure

CORLEW, GLENN F., 2988 Cherry Lane, Walnut Creek, Calif. 94596.
AFFECTION, TECATE, TRALEE

COWARD'S GARDENS, 210 South Hawkins, Waxahachie, Texas 75165.
Angel Butterfly, Blue Wadi, Mary Sunshine, Peg Winter, Prim-
rose Corsage

CRAIG GARDENS, Route 1, Box 97, Hubbard, Oregon 97032.
Border Beauty, Bright Veil, Chabacano, Color Charm, Coloroyal,
Dark Brilliance, Garish, La Paz, New Hues, Patterned Beauty,
Play It Cool, Pleasing, Red Boat, Red Desire, Red Plume, Sur-
prise Pattern, Taxco Jewel, Tints, White Favor, White Spot

CRAIG, TOM, Route 4, Box 315, Escondido, California 92025.
ATTRACTIVE, BORDER BEAUTY, BRIGHT VEIL, CHABACANO, COLD WAVE,
COLOR CHARM, COLOR CONTRAST, COLOROYAL, FLAN, GARISH, LA PAZ,
NEW HUES, PATTERNED BEAUTY, PLAY IT COOL, PLEASING, RED BOAT,
RED DESIRE, RED PLUME, RIPPLING WINE, ROYAL NAVY, SURPRISE
PATTERN, TAXCO JEWEL, TINTS, VERINOVEL, WEBSPUN, WHITE FAVOR,
WHITE LIE, WHITE SPOT

CRAMER, M. D., Route 1, Box 34, Payson, Illinois 62360.
GOLDEN BURLEY, GREAT RIVER

CRAMER'S IRIS GARDENS, Payson, Illinois 62360.
Great River

CROOKED CREEK IRIS GARDENS, Star Route, Marquand, Mo. 63655.
Noel Enfaunte, Boston

CROSSMAN, GEORGE I., Route 1, Box 356, Hamilton, Va. 22068.
QUIET FLIGHT

CROUCH, ELLEN K., 1810 Olmstead Drive, Falls Church, Va. 22043.
STORMY ECHOES

DALING, MERLE, Box 336, Waterville, Washington 98858.
PASTEL FASHION

DANIELSON, HENRY, 3036 N. Narragansett Ave., Chicago, Illinois
60634.
RADIANT SMILE

DE FOREST, MRS. CAROLINE, Route 3, Box 363, Canby, Oregon 97013.
BLACK PANSY, HONEY RAE

DELANY, MRS. LUCY, 13 Gladstone Road, Richmond, Nelson, New
Zealand
ALPINE MUSIC, DARK TASMAN, FASHION DRAMA, NELSON STAR, TINY
TINK

DENNIS, MRS. ZEH, JR. (Dorothy), Route 1, Box 337A, Hot Springs,
Arkansas 71901.
BONUS

DUBES, GEORGE W., 2128 Isabella St., Sioux City, Iowa 51103.
SPRING MIRROR

DUGHI, JOHN A., 2508 Beechridge Road, Raleigh, N. C. 27608.
JOHN EVELYN

DUNBAR, MRS. PAUL E. (Bonnie), 928 North Rochester Ave.,
Indianapolis, Indiana 46222.
CRANBERRY VELVET, ROYAL SWAN

DUNDERMAN, MARY LOUISE, 480 White Pond Drive, Akron, Ohio 44320.
BLUE EVENING, GINGHAM BLUE, JANA WHITE, LITTLE LUCY, PURPLE
HEATHER

EDEN ROAD IRIS GARDEN, P. O. Box 117, Wenatchee, Wash. 98801.
Albino Plumes, Amberita, Chief Moses, Citrus Mist, Coastal
Waters, Coral Ice, Day's Delight, Exotic Wings, Flame and
Sand, Flarette, Hot Spell, Painted Angel, Punchline, Quetta,
Ribbons of Blue, Rolling Waves, Sinabar, Study in Black,
Surprise Surprise, Suva, Sweet Lorraine, Tropic Touch

EDWARDS, MRS. MARGARET (Peg), 235 Koehl St., Massapaqua Park,
New York 11762.
JEALOUS BELLE

EL DORADO IRIS, 500 East Locust, El Dorado, Kansas 67042.
Boy Scout, Buck 'N Wings, Carnaby Street, River Styx, Tiddley
Wink, Wandering Wind

FAIL, HILDA (Mrs. H. F.), 431 Park Ave., Yuba City, Calif. 95991.
BOB MATHIAS, TULE QUEEN

FERGUSON, WALKER, 1160 N. Broadway, Escondido, Calif. 92025.
INTENSITY, LANDSCAPE BLUE, NATIVE MUSIC, ONE REASON, PURPLE
KNIGHT. Quiet Cream

FINNEY, MRS. FRANCES, Route 1, Box 107, Onalaska, Wash. 98570.
ONALASKA SKIES, PEACHY PINK, STRIPES

FLEUR DE LIS GARDENS, P. O. Box 670, Canby, Oregon 97013.
Ballet Babe, Cimarron Strip, Dulcey, Gentility, Itsa Doozey,
Las Vegas Gold, Night Laughter, Radiant Bride, Sapphire Shore,
Satin Sound, Seafoam Green, Something Blue, Something Borrowed,
Something New, Something Old, Star Trek

FOSTER, MRS. CHARLES R. (Doris), 321 E. Montecito Ave., Sierra
Madre, California 91024.
BIB 'N' TUCK, PERSIAN DANCER, PERSIAN QUEST, PERSIAN STAR

FRAMKE, MABEL, Route 3, Canby, Oregon 97013.
SEAFOAM GREEN

FREUDENBURG IRIS GARDEN, Box 327, Battle Creek, Nebr. 68715.
Arland

FREUDENBURG, MRS. LENA, Box 327, Battle Creek, Nebraska 68715.
ARLAND

GARRETT, MRS. CHARLES I., Box 614, Hopewell, Virginia 23860.
NELL BROYHILL

GASKILL, FERRIS D., Box 232, R.R. 2, Barrington, Illinois 60010.
ROMAN VILLA

GATTY, JOSEPH A., 5-22 Hazel Place, Fair Lawn, N. J. 07410.
KHARAM, NINE MUSES, SHOW BIZ

GAULTER, LARRY, 20124 Catalina Drive, Castro Valley, California
94546.
ELEGANT FARMER, GRAPE FESTIVAL, NORMANDIE, ORINDA, SAN
LEANDRO

GHIO, JOSEPH J., 1201 Bay St., Santa Cruz, California 95060.
CENTER STAGE, ELOQUENT, JUSTICE, PONDEROSA, SORCERER, SWAMI,
WHISPERING GLADE

GOETT, JOHN E., Old Trees, 1330 Monroe Turnpike, Monroe, Conn.
06468.
Doll Apron

GOODMAN, RICHARD, 253 Bloomingbank Rd., Riverdale, Ill. 60546.
HAPPY YEARS, PEACH SPLENDOR

GOODRICK, MRS. HOWARD W., 16620 W. Pepper Lane, Brookfield,
Wisconsin 53005.
MERRY AIRE, REGAL IMAGE

GOODRICK, HOWARD and RUTH, 16620 W. Pepper Lane, Brookfield,
Wisconsin 53005.
White Caprice

GRANGER, MARVIN A., P. O. Box 838, Lake Charles, La. 70601.
CONTRABAND DAYS. Bramble Queen, Delta Star, Gypsy Moon,
Yellow Sails

GRAVES, HERBERT, Friend, Kansas 67845.
CALIFA KABANG

GREENBRIER FARM, Box 232, R.R. 2, Barrington, Illinois 60010.
Janet Marie, Three Graces

GREENLEE, MRS. R. E. (Wilma), Rt. 3 Horace Rd., Chrisman, Ill.
61924.
CHEERFUL HEART, FRILLY, HEAVENLY STAR, INDIAN DOLL, RASPBERRY
ACRES, ROCKET FLAME, SNOW CHERRIES. Indian Fire

GUILD, DOROTHY E., E. 9609 Shannon, Spokane, Washington 99206.
Elegant Try, Li'l Kitty Hawk, Sparkle Brite, Tiger Doings,
Tiger Territory, Whispering Sprite

HAGER, BEN R., 309 Best Road, S., Stockton, California 95206.
Decolletage, Footlights, Puppet, Puppy Love, Silkie, Swank,
Whatzit

HALL, DR. C. C., Tanglewood, 17 Sollershott West, Letchworth,
Herts, England.
ELEGANT LADY, TYRIAN ROSE

HALL'S FLOWER GARDEN, R.R. #2, Box 104, West Alexandria, Ohio
45381.
Shiloh Hills

HAMBLIN, MRS. J. R. (Melba), 2778 W. 5600 S., Roy, Utah 84067.
AZURE GOLD, CHERRY ACCENT, GENIE, PANORAMIC, RECITAL

- HANSFORD, MRS. D., Cherrywood, Granville Rd., Oxted, Surrey,
England.
BLUE SIGNAL, CHARM YELLOW, CHRISTOPHER, ELIZABETH'S BIRTHDAY,
GOLDEN AUREOLE, WATER SPRITE
- HANSON, G. F., 7124 Riverdale Rd., Minneapolis, Minn. 55430.
AUF WIEDERSEHEN
- HARDER, LARRY L., Ponca, Nebraska 68770.
TIMELESS
- HARDY, MRS. JOHN, 296 Hunsaker Lane, Eugene, Oregon 97402.
DRAGON FIRE, FAVORITE THINGS, HAPPY RETURNS, HEAT LIGHTNING,
LOVE AND KISSES, PSYCHEDELIC SAL, SPRING SUNDAE, STRANGE
MUSIC, TURNING POINT, VANTAGE POINT
- HAZZARD, ARTHUR H., 510 Grand Pre Ave., Kalamazoo, Mich. 49007.
ANGELIC ADVOCATE, PASTEL RUFFLES, PRAIRIE EDGE, PRAIRIE PINK,
ROYAL RADIANCE
- HILDA'S IRIS GARDEN, 706 E. Inyo St., Tulare, California 93274.
Bob Mathias, Tule Queen
- HINKLE, MRS. GEORGIA MURPHEY, Scotsboro Road, Rt. 4, Marion,
Illinois 62959.
KENTUCKY HILLS, ROYAL EGYPTIAN, VENETIAN WALTZ
- HISER, RAYMOND E., 540 Parkbrook St., Spring Valley, California
92077.
FIESTA TANGO
- HITE'S IRIS GARDEN, Southeast on US 33, Goshen, Indiana 46526.
Apricot Crown, Copper Valley, Frilly Dilly, Golden Parasol,
Plum Dancer, Royal Dream
- HOLDEN, JOHN, Route 1, Box 3770, Ridgecrest, California 93555.
Abou Ben Adhem, Spiced Coffee
- HOUSLEY, MRS. PUNSHON (Lys), 1425 Normandy Rd., Golden, Colorado
80401.
LYNDA MAI, WIDEACRES ROSE
- HOWE, A. C., 81 Merrion Ave., Stanmore, Middlesex, U.K.
MERRY NOTE, STRONGBOW, WESTERN APPROACHES
- HUTCHINGS, F. E., 855 Monterey Court, San Leandro, Calif. 94578.
NUMERO UNO, SMALL FAVOR
- INNES, ROBERT, 1123 South 18 St., Yakima, Washington 98901.
CAPE IVORY
- JAEGER, EDWIN F., 1150 Sherman Ave., Salt Lake City, Utah 84105.
DOROTHY MAE
- JEFFS, H. R., 79 Seddon Road, Morden, Surrey, England
H. F. R. MILLER
- JOHNSON, ALAN W., Private Bag, Tongala, Victoria, 3621, Australia.
IVYHOLM BUTTERCUP, IVYHOLM RUFFLES, PARTY CLOTH
- JONES, BENNETT C., 5635 S.W. Boundary St., Portland, Oregon 97221.
BLUE DOVE, GINGERBREAD MAN, MEADOW MOSS, MELONTINGE, PEACH
GLOW. Cloud Crest, Fuchsia Gem, Rain Pool, Star Beam, Sun
Symbol
- JULANDER, DR. ODELL, 1790 West 1460, N., Provo, Utah 84601.
JODY, ORAGLOW
- KAMPS, LOUIS A., 1315 Western Avenue, Northbrook, Illinois 60062.
HAPPINESS IS, LOVING CARE

KELLIE, W. G., 439 N. Beech, Pasco, Washington 99301.
ARABIAN MOSQUE, TEL HASHI

KEMP, MRS. ALEAN B., 425 East 9 North, Logan, Utah 84321.
MY SHIELA, PRISM-LITES, SWEET HELEN, TALKS TO YOU. Dani
Grace, Rosegay

KEPPEL, KEITH, P. O. Box 8173, Stockton, California 95204.
BALLYHOO, CHARMED CIRCLE, CLIQUE, EARLY EDITION, FINE PRINT,
FOGGY DEW, FOOTNOTE, PALE CLOUD, VAUDEVILLE. Footnote, Love
Letters

KNOPF, MRS. MAYNARD (Beebee), Route 1, Box 18-B, Potter Valley,
California 95469.
MAYNARD

LADD, DAVID, Route 1, Athens, Ohio 45701.
BRANDON GROVER, DOCTOR SUNSHINE, DON CLIPPINGER, JESSIE LEY,
MARIA CHERRINGTON

LANDSEND GARDEN, 4326 Grandin Road Ext., Roanoke, Va. 24018.
After Image, Broken Chord, Lower Lights, Soft Melody

LAW, W. P., Box 9, Matata, Bay of Plenty, New Zealand.
EMMA LAW

LESLIE, L. S., P. O. Box 443, Republic, Missouri 65738.
BLUE LEW

LITTLE, R. D., 54 Arnold St., Richmond Hill, Ontario, Canada.
RICHMOND ROYAL

LORENZ, DAVID, 643 Crister Avenue, Chico, California 95926.
FOX TROT, GROOVY, IPANEMA, MOCHA, MORNING RAIN, SAUSALITO

LOVERIDGE, DR. G. B., 2 Lynch St., Young, N.S.W., Australia.
BUSH FIRE, COPACABANA, JACQUINOT BAY, SAIDA CHANT, SAIDA
CHARM, SAIDA LAKE, SEPIK DELTA, SURF BEACH, WARRIMOO

LUIHN, WALTER F., 523 Cherry Way, Hayward, California 94541.
LILAC MIST

LYNN, JOSEPH E., JR., Box 323, Buena Vista, Virginia 24416.
PO TING

MAC LEAN, MRS. CARLETON G., 98 Woodcliff Ave., Woodcliff Lake,
New Jersey.
DELICATE LASS

MACOMBER, MRS. MARIE, 120 E. 9th Avenue, Colville, Wash. 99114.
MOM SCOTT

MADDOCKS, FRED T., P. O. Box 354, 4032 Pennsylvania Ave., Fair
Oaks, California 95628.
TIME AND TIDE

MAHOOD, MRS. MARTIN (Leona P.), 11250 First Ave., N.W., Seattle,
Washington 98177.
BROWN WINGS, DRADY'S GIRL, LAVENDER CHERUB

MAPLE CROFT IRIS GARDENS, Cedar Lane Road, RFD #1, Greensboro,
Maryland 21639.
Maryland Lass, Nordic Light, Tigress

MAPLE TREE GARDENS, Ponca, Nebraska 68770.
Creole Baby, Golden Mantilla, Precious One

MARKHAM GARDEN, Upland Avenue, Lunenburg, Mass. 01462.
Mohawk Trail

- MARSH GARDENS, 3904 N. Ottawa Avenue, Chicago, Illinois 60634.
Prairie Skies
- MARSH, JAMES E., 3904 N. Ottawa Ave., Chicago, Illinois 60634.
CHICAGO, MOLTEN GLASS, PRAIRIE SKIES, SAILOR TOGS, SUN TEMPLE
- MARTIN, LUTHER B., 4065 Auburn Road, Memphis, Tenn. 38116.
MARTINAE
- MAYBERRY-JULANDER GARDENS, 638 E. 300 North, Provo, Utah 84601.
Oraglow, Jody
- McCAFFREY, MRS. HAZEL T., 1215 Travis St., El Paso, Texas 79903.
CLIVE, FALL CREAM, LEMONITE
- McCORD, FORREST, 208 North Cook Road, Muncie, Indiana 47303.
GRAND JUNCTION, MACONAQUAH
- McCOWN, MRS. FRANK (Eleanor), P. O. Box 176, Holtville, Calif.
92250.
HIGHLINE LAVENDER
- McEWEN, DR. O. CURRIER, 5431 Palisade Ave., Riverdale, New York
10471.
BIG BLUE, CLEVE DODGE, EARLY BLUEBIRD, HUNT BROWN, LITTLE
WHITE, MARILYN HOLMES, MAUVE MELODY, POLLY DODGE, PRECOCIOUS
PINK, SALLY KERLIN
- McLANE, SUE N., 1393 Yampa Avenue, Craig, Colorado 81625.
YAMPA VALLEY GOLD
- MELROSE GARDENS, 309 Best Road, S., Stockton, California 95206.
Alcalde, Amethyst Accent, Balkan Glacier, Burning Coals,
Claremont Classic, Delta King, Flight of Angels, Geisha
Parasol, Golden Bonanza, Kelita Jethro, La Raspa, Media Luz,
Mister, Ruby Wine, Sparkling Rose, Tan Sun, Time and Tide,
Western Host, Woodwind, Xanadu
- MEYER, WILLIAM McKEE, 3447 Oakford Road, Trevos, Pa. 19047.
FLARING PINK, TREVOSE
- MILLER, MRS. EDWARD G. (Kathryn), 3764 South Kansas, Milwaukee,
Wisconsin 53207.
MELCENA, MIRACLE DREAM. Deseree, Fluted Pearl, Graceful Lady,
Lulling Dreams
- MISSION BELL GARDENS, 2778 West 5600 South, Roy, Utah 84067.
Caliente, Ivory Touch, Jeweled Flight, Radiant Sun, Raspberry
Parfait, Royal Heritage, Teko, Tex-o, Threshold
- MISTY HILLS GARDENS, Eagle Bridge, New York 12057.
Almond Pink, Brewing Storm, Gold Clarion, Luscious Love,
Molten Fire, White Formal
- MOLDOVAN, STEVE C., 38830 Detroit Road, Avon, Ohio 44011.
FAR CORNERS, FLASH LIGHTNING, GOOD HOPE, LITTLE RICHARD,
MANDARIN MOON, SHINTO SHRINE, TURKISH TREASURE, VIGNETTE,
WHIRLING DERVISH
- MOLDOVAN'S GARDENS, 38830 Detroit Road, Avon, Ohio 44011.
Dove Wings, Grand Opening, Lemon Spot, Little Richard, Pink
Taffeta, Quiet Night, Repartee, Roman Villa, Saffron Robe,
Seven Leagues, Tangerine Tango, Vignette, Watercolor
- MOTSCH, ALBERT J., 600 S. Pine St., Mt. Prospect, Illinois 60056.
DAY'S PROSPECTS, MARILOU, MIDNIGHT SERENITY. Blue Space, My
Dream
- MOUNT CLARE IRIS GARDENS, 3036 N. Narragansett Ave., Chicago, Ill.
Radiant Smile

MUHLESTEIN, TELL, 425 North 4 West, Orem, Utah 84057.
 ECHELON, PREFERRED MAN, QUIET GRANDEUR, TABLE WARE

NEARPASS, D. C., 9526 50th Place, College Park, Maryland 20740.
 COUNTRY MUSIC, IVY LEAGUE, JEALOUS LOVER, LORD BALTIMORE,
 PEACH PAISLEY

NELSON, MRS. RALPH (Jeannette), 205 South 12 St., Coeur d' Alene,
 Idaho 83814.
 AFRICAN QUEEN, ENDEARING, OUTREACH, TOP BILLING

NEUBERT, H. W., Route 6, Knoxville, Tennessee 37914.
 CRYSTAL VISION, MARCHING ON, MILDRED HILL, TENNESSEE WALTZ

NEUBERT'S FLOWER GARDEN, RFD 6, Wayland Drive, Knoxville, Tenn.
 Fantasy Land, Humdinger, Oh Gee, Tussah Silk

NEUGEBAUER, JOHN F., 4308 20th St., North, Texas City, Texas
 77590.
 ANGEL SKIN, RUUSITA

NEWHARD, WILLIAM, 26 W. Zion Hill Rd., Quakertown, Pa. 18951.
 FOCAL POINT, PINK PIROUETTE, TREND, WINTER DREAMS

NEY, MRS. LAVONE, 2517 S. Brisbane Ave., Milwaukee, Wisc. 53207.
 Tomtebo

NICK'S IRIS AND PEONY GARDENS, Norfolk, Nebraska 68701.
 Hunter's Night, Natural Poise, Ruffled Mahogany, Walking Happy

NOYD'S IRIS GARDEN, 1501 Fifth St., Wenatchee, Washington 98801.
 Cool, Corduroy and Lace, Fleur Adore, Horned Sunshine, Irish
 Delight, Joy Ride, Kick Off, Lotta Charm, Wind Rhythm

NOYD, MRS. WALTER (Luella), 1501 Fifth St., Wenatchee, Wash.
 CLASSIC LADY, FINERY, KENO, LAVENDER SAILS, SYMPHONETTE

OLD BROOK GARDENS, 19 Mary Lane, Greenvale, New York 11548.
 Anne Michele, Blue Burn, Coming Up, Cookies, Doll Apron, Elma
 Belle, Eva's Pride, First Night, Gwyneth, Haze, Junior Prom,
 Lillibullero, Mini-Sapphire, Miss Fairfax, Nobby, Penthouse,
 Pippa Passes, Pitti Sing, See Me, Singing Sword, Slumber
 Party, Speckles, Summer Janeway, Summer Darkness, Sunrise
 Buttercup, White Harmony, Willow Wisp

OLSON, MARVIN G., 1549 Columbine Drive, Webster Groves, Mo.
 63119.
 APACHE TRAIL, ARCTIC ANGEL, ARCTIC DAWN, ARCTIC FANTASY,
 ARCTIC TORCH, DAWN BLUSH, ETERNAL JOY, NOBLE GUEST, RADIANT
 BEAM

ORPINGTON IRISES, Rocky Lane, Gatton Park, Reigate, Surrey, Eng.
 Curlew, Gosau, Landscape, Rosemary Lane, Tanglewood, Whis-
 pering Shadows, White Cape, White Horses

OSBORN, E. N., 144 Ellison Road, Streatham, London, England.
 JULIA FRANCES

PALMER, MRS. RAY C. (Dorothy), Route 1, Box 296, Weidmann Road,
 Manchester, Missouri 63011.
 ABSTRACTION, HEATHER HAZE, SKATER'S WALTZ, SKY REFLECTION
 Dancing Sunbeam, Spring Lyric

PAYNE, W. A., #5 Vienna Drive, Santa Ana, California 92703.
 AURA, GRAND PATRIARCH, MILADY'S FAN, NOCTURNAL SHADOW,
 ORIENTAL FANTASY, ROSE ADGIO, SHEER FASCINATION, SHEER GLAMOUR,
 SOLEMN FAREWELL, SPIRIT OF SHADOW

PETERSON, LES, 1320 Murphy Lane, Salt Lake City, Utah 84106.
 QUACHETA, SATAN, JR.

PICKARD, MRS. CORA MAY, Route 2, Benton, Illinois 62812.
 CANDY STICK, SILVER BOUNTY. Egyptian Prince, Golden Coin,
 Man, Man, Picora's Daughter, Point Clear

PIKE, MRS. WILLIAM (Elizabeth), Houston, Delaware 19954.
 WIND MELODY

PILLEY'S GARDENS, Valley Center, California 92082.
 Highline Lavender

PINE SHADOWS GARDENS, 8619 E. ML Ave., Kalamazoo, Mich. 49001.
 White Pine

PLOUGH, GORDON W., P. O. Box 117, Wenatchee, Washington 98801.
 ALL AFLAME, AMBER ACCENT, BANDOLIER, BEAUTY TIP, BEAUX ARTS,
 CHARCOAL, DARK DREAM, FAUSTINA WALKER, FESTIVE SPIRIT, FLOWER
 POWER, MARIACHI, PINK CHEER, SILVER SHADOWS, SON OF STAR,
 STRANGE MAGIC, SUNRISE RIM

PLUMLEY, H. LADD, 16 Moreland St., Worchester, Mass. 01609.
 HIS MAJESTY, PINK RAINBOW

POWELL, MRS. S. E. (Loleta), Route 2, Princeton, N. C. 27569.
 CAROLINA DUSK, MEREDITH HUES, TWO PRETTY

POWELL'S GARDENS, Route 2, Princeton, North Carolina 27569.
 Carolina Delight, Carolina Hope, Carolina Polka, Korean Kapers

PROTZMANN, CLARENCE H., 400 E. Van Norman Ave., Milwaukee, Wisc.
 53207.
 Lee's Delight, Wisconsin Heritage

QUADROS, CARL A., 3224 Northstead Drive, Sacramento, Calif. 95833.
 BLUE APRON, LITTLE DOCTOR, LITTLE GYPSY

RAWLINS, D. O., 5663 Markey Road, Dayton, Ohio 45415.
 DOUBLE HUE, ESTHER RAWLINS

REGION 22, c/o Perry L. Parrish, RVP, 4908 NW Grand Blvd., Okla.
 City, Oklahoma 73112.
 Bright and Bold

REINHARDT, MRS. ROBERT (Mattie), 14151 W. National Ave., New
 Berlin, Wisconsin 53151.
 CHARTREUSE MISS, LEMON ETCHING

REYNOLDS, MRS. HELEN GRAHAM, 500 East Locust St., El Dorado,
 Kansas 67042.
 BOY SCOUT, BUCK 'N WING, CARNABY STREET, RIVER STYX, TIDDLEY-
 WINK, WANDERING WIND

RIGGS, HARRY W., 211 N. Grinnell St., Jackson, Michigan 49202.
 JERRY SCHNEIDER, TONJA CHERYL

RIVERDALE IRIS GARDENS, 7124 Riverdale Rd., Minneapolis, Minn.
 55430.
 Dark Spark, Garnet Gleam, Parchment Plum, Sparkling Cloud, Sun
 Sparkle, Tiger Blaze

ROBERTS, EARL R., 5809 Rahke Road, Indianapolis, Indiana 46217.
 AMBER RAYS, AMBER TOUCH, DACHE MODEL, IRISH SEA, MINT ICE,
 PAGAN BUTTERFLY, SKY CLIPPER, SOLAR GLEAM. Dove Wings,
 Watercolor

ROE, MRS. BERNICE R., 1051 Bird Ave., San Jose, Calif. 95125.
 SAN JOSE ROSE, SUNSET SKY. Sunset Shadows, Waves and Foam

RUSK, JOHN D. III, 549 Edinborough Drive, Bay Village, Ohio
 44140.
 PINK GALAXIE

SARRO, MRS. PHILIP (Helen), 7 Chestnut St., Pittsfield, Mass.
01201.
FAIRY BALLET

SAXTON, MRS. GLADYS, W. 45 Third (Apt. D), Spokane, Wash. 99204.
HEURE MAUVE, SILVER ANNIVERSARY

SCHLIEFERT, ARNOLD, RFD #1, Murdock, Nebraska 68407.
DARK AGES

SCHMELZER, HAZEL E., 731 Edgewood, Walla Walla, Wash. 99362.
BLACK BART, GIRL TALK, LAKE KALAMALKA, LIGHTNING FLASH, OUT
WEST

SCHMELZER'S GARDEN, 731 Edgewood, Walla Walla, Wash. 99362.
Young Love

SCHORTMAN, W. B., 849 W. Putnam Ave., Porterville, Calif. 93257.
DESERT CHARM, LITTLE BUFFIE, LITTLE SISSIE, LITTLE SUSSIE, NEW
SNOW SYMPHONY

SCHORTMAN'S IRIS GARDEN, 849 W. Putnam Ave, Porterville, Calif.
Hawaiian Love Call

SCHREINER'S, 3625 Quinaby Rd., NE, Salem, Oregon 97303.
APPLEJACK, BROWN DOLL, BURNISHED GLOW, CANDALARIA, CITRON
CREME, GOLDEN AUTUMN, JOLLY ELF, KIX, LIME FIZZ, MARGARITA,
OCTOBER ALE, POLYNESIAN SUNSET, RITZ, SEA CAPTAIN, SKEETER,
SNOWLINE, TAHITIAN BRONZE, VITAFIRE. Dresden Candleglow,
Matinata, Pink Horizon, War Lord

SEXTON, MRS. NEVA, 1709 Third St., Wasco, California 93280.
NEW MOON

SHOOP, GEORGE, 2009 NE Liberty, Portland, Oregon 97211.
DREAM SPINNER. Kiss 'N Tell, Viva

SIERRA VIEW GARDENS, 643 Crister Avenue, Chico, Calif. 95926.
Sierra Spring, Sudden Beauty

SIERRA VISTA IRIS GARDENS, 31933 Yucaipa Blvd., Yucaipa, Calif.
92399.
Golden Spectator, Picture Perfect, Saracen Warrior

SIKORA, JOSEPH M., 20142 Lunn Road, Strongsville, Ohio 44136.
LAURIKIM WENDY, SPRING SOON

SILFIES, IRENE HARPER, RD #1, Box 143-F, Shamokin, Pa. 17872.
BILL K., BRIDE TO BE, CREAM BUTTERFLY, GILDED SATIN, GILDED
PIXIE, GOLDIE'S LOVE, MAYAN QUEEN, MILLIE ADAMS, PATRICIA
BELL, PATSY LOU, PROVIDENCE

SILVERA, ERIC L., 450 Manzanita Lane, Redding, California 96001.
AL BAYDA

SINDT, DAVID B., 317 Larpenteur Ave., E., St. Paul, Minn. 55117.
DANCING EYES, GYPSY FLIRT, MOON SHADOWS

SISKIYOU RARE PLANT NURSERY, 522 Franquette St., Medford, Oregon
97501.
Faraway Dream, Fort Rock, Valley Banner, Westwind Sorcery,
Wildwood Fantasy, Wildwood Garland

SMITH, DELORA I., Rt. 2, Box 392-A, Springfield, Oregon 97477.
CIRCLE WALTZ, DECORETTE, LITTLEBRITCHES, MOONFLOWER, PANDORA'S
GIFT, SINGING RILL, SUNDAY SAILOR, SWEETBRIAR ROSE

SMITH, MRS. EVA T., 614 Bryden, Lewiston, Idaho 83501.
GOLDEN DIADEM, ORANGE CHIFFON, SPANISH LACE

SMITH, RAYMOND G., 3821 Sugar Lane, Bloomington, Indiana 47401.
Autumn Night, Autumn Elegance, G. Percy Brown

SMITH, REUBEN T., 2382 Prospect & Upper Sandusky Rd., R.R. #3,
Marion, Ohio 43302.
QUEEN OF FASHION

SMITH'S IRIS GARDENS, 614 Bryden, Box 483, Lewiston, Idaho 83501.
All Season, Blazing Fury, Cyclone, June Wedding, Queen's
Delight, Rare Treasure

SOUTHERN MEADOWS GARDEN, 1424 South Perrine, P.O. Box 230,
Centralia, Illinois 62801.
Big Jim, Broker's Tip, Morning Kiss, Pawnee Pride, Skyball

SPENCE, HERBERT J., 3461 Adams Avenue, Ogden, Utah 84403.
BRIEF ENCOUNTER, COUNTRY GIRL, DRESS SUIT, FARMER'S DAUGHTER,
GATE WAY, GLASS MENAGERIE, MAIN POINT, PACIFIC ISLE, SPANISH
EYES, THEATRE ARTS

SWEARENGIN, MRS. LILLIAN B., 2600 S. Roslyn, Denver, Colo. 80222.
MA SU CHEN

TALLANT, MOLLIE B., P.O. Box 144, Edmond, Oklahoma 73034.
JUANITA T.

TAMS, MRS. ESTHER F., P.O. Box 157, Wellsville, Utah 84339.
ATHENE'S LACE, PEACH QUEEN

TAYLOR, J. D., Boughs, Hythe, Kent, U.K.
JANE TAYLOR, JEAN VALON, LEMANIS, LITTLE VANESSA

TELL'S IRIS GARDENS, 425 N. 4 West, Orem, Utah 84057.
Ardi Loy, Bethlehem Song, Celestial Ruffles, Country Poet,
Dress Suit, Echelon, Esther The Queen, Fairy Goblin, Flaring
Pink, Gala Madrid, Glass Menagerie, Laced Tapestry, Mayfair
Pink, Peach Queen, Preferred Man, Quiet Grandeur, Spring
Anthem, Table Ware, Turkish Tracery, Violet Glow

TERRELL, COLLIE S., 926 Maple Avenue, Wasco, California 93280.
LADY MONGERSON

THOMAS, RAYMOND S., Box 155, Saltillo, Pennsylvania 17253.
CAPTAIN JACK

TIMBS, G. A., 2686 Saunders Settlement Rd., Sanborn, N.Y. 14132.
BRIDGET

TOLMAN, BION, 4399 Carol Jane Drive, Salt Lake City, Utah 84177.
CELESTIAL RUFFLES, LACED TAPESTRY

TOMPKINS, CHET W., P. O. Box 670, Canby, Oregon 97013.
CIMARRON STRIP, DULCEY, GENTILITY, ITSA DOOZEY, LAS VEGAS
GOLD, NIGHT LAUGHTER, RADIANT BRIDE, SAPPHIRE SHORE, SATIN
SOUND, SOMETHING BLUE, SOMETHING BORROWED, SOMETHING NEW,
SOMETHING OLD, STAR TREK

TOP O' THE RIDGE, 100 NE 81st St., Kansas City, Missouri 64118.
Broad Pacific, Tomki, Tycoon's Gold, West Coast

TUCKER, JAMES S., Box 230, Centralia, Illinois 62801.
SKYBALL, SOUTHERN CHARM, SOUTHERN TRIUMPH

UNIVERSITY HILLS NURSERY, 470 Delgado Drive, Baton Route, La.
70808.
LADY MARY

VARNER, D. STEVE, N. State Street Road, Monticello, Ill. 61856.
CARILLON BELLES. Hatari, Illini Encore

VENNER, J. E., 40 Ightham Road, Erith, Kent, England.
 JUNE MELODY, KENT BUTTERFLY

VORIS, CHARLES WM., R.D. #2, Watsontown, Pennsylvania 17777.
 DRAB DREAM, SPECTRAL STUDY, WATTAFLARE. Black Monk, Inkwell,
 Pearls and Lace, Sergeant Campos, Sweetheart at Tea

WALKER, MRS. GENEVA, Route 1, Crane, Missouri 65633.
 MAGIC PALOMINO

WANGANUI IRISES, Ngatarua Road, Putiki, Wanganui, New Zealand.
 Colour Bright, Pink Personality

WARBURTON, MRS. F. W. (Bee), Rt. 2, Box 541, Westboro, Mass.
 05581.
 BUTTERSCOTCH CREAM, CROWN, LADY, MOONDAY, SONG. Cookies,
 Pitti Sing, Slumber Party, Speckles

WATKINS, ARTHUR, 97 Fiske Road, Concord, New Hampshire 03301.
 ANNE MICHELLE, MAUREEN'S PRIDE, MILLIE GLOVER, MISS FAIRFAX,
 NETTIE WHITE, PROLIFERATION'S PRIDE

WELLS, C. A., Route 1, Box 61, Hood River, Oregon
 RIVERDALE

WHARTON, DR. D. R. A., 3 Highland Street, Natick, Mass. 01760.
 HALCYON SKIES, RIOT

WILD, GILBERT H. & SON, INC., Sarcoxie, Missouri 64862.
 Gentian Etude

WILLS, JESSE E., 1201 Belle Meade Blvd., Nashville, Tenn. 37205.
 BATTLE HONORS, SANDILANDS, SHINING MOMENT, STROPHE

WISSBAUM, MRS. ADDA T., 601 West 8 St., Lexington, Nebr. 68850.
 LISA MICHELLE, NU-NU

WITT, MRS. JEAN G., 16516 25th, N.E., Seattle, Wash. 98155.
 COPPER STRIKE, DANCING GOLD, DILETTANTE

WOOD, MRS. IRA (Elizabeth), 37 Pine Court, New Providence, New
 Jersey 07974.
 HINT O' MINT

WOOD, VERNON D., 1624 Buena Ave., Berkeley, California 94703.
 CHERRY JUBILEE

WRIGHT, MAY BELLE, 10051 Brookside Ave., Bloomington, Minn.
 55431.
 RUFFLED CHERUB

YUNKER, MRS. EDNA M., P.O. Box 8, Taycheedah, Wisconsin 53090.
 ORCHID ECHO

YUNKER, MISS NADINE, P.O. Box 8, Taycheedah, Wisconsin 53090.
 HONEY HEART

ZURBRIGG, DR. LLOYD, 903 Tyler Ave., Radford, Virginia 24141.
 ALPEN MAJESTY, DA CAPO, EASTER GLORY, EDENGLO, GRAND BAROQUE,
 HOUSE OF LORDS, LACE NEGLIGEE, TIBETAN TREASURE, WHOLE
 PACIFIC

**YOUR
SYMPOSIUM
BALLOT
LIBRARY
1969**

APR 26 1969

NEW YORK
BOTANICAL GARDEN

We encourage all members of The American Iris Society to participate in this ballot, so that we can have a wide consensus of the varieties that grow and bloom best in American gardens.

BULLETIN OF THE

AMERICAN IRIS SOCIETY

NUMBER 193 APRIL 1969

PRINTED IN TWO SECTIONS • SECTION 2

THIRTIETH OFFICIAL SYMPOSIUM
THE AMERICAN IRIS SOCIETY
1969

This is your ballot for the Thirtieth Official Symposium to determine the One Hundred Favorite Irises for 1969. The list was compiled by combining the following:

- The top 100 varieties in the 1968 symposium.
- The Dykes Medal eligibility list of 1969, TB only.
- The AM eligibility list of 1969, TB only.
- The HM winners of 1968, TB only.

Every member of AIS may participate in this balloting. Please do! To vote, observe carefully the following instructions.

1. Do not vote for any iris you have not seen growing in a garden, and in bloom.
2. Place an X in the blank in front of each of your 25 favorites; thus X. Second members of a family membership; place a 0 in the blank in front of each of your 25 favorites; thus 0. Since the format of this ballot is designed for easy voting and easy tabulation by the RVPs, this is important.
3. Do not vote for more than 25. You may vote for fewer.
4. You may vote for five varieties not listed. This is in addition to the 25 selected from the list.
5. Your ballot must be mailed to your REGIONAL VICE PRESIDENT before July 1 in order to be counted. Get name and address of your RVP from page 4 of this Bulletin. DO NOT MAIL TO ST. LOUIS OR TO THE AWARDS CHAIRMAN.
6. Sign your ballot, and send first class mail.

NAME _____

ADDRESS _____

CITY AND STATE _____

MAIL THIS BALLOT BEFORE JULY 1 TO BE COUNTED

VARIETIES ELIGIBLE FOR THE SYMPOSIUM --- 1969

__ ABOVE ALL	__ BLEWETT PASS	__ CELESTIAL SNOW
__ ACORN	__ BLUE BARON	__ CELESTIAL SWAN
__ AD ASTRA	__ BLUEBELL LANE	__ CERAMIC BLUE
__ AIR DE BALLET	__ BLUE CHIFFON	__ CHAMPAGNE MUSIC
__ ALASKAN CROWN	__ BLUE FORMAL	__ CHARLOTTE SAWYER
__ ALASKAN SUNSET	__ BLUE LEATHER	__ CHARMAINE
__ ALLEGIANCE	__ BLUE MOUNTAINS	__ CHARM OF EDEN
__ AMETHYST FLAME	__ BLUE PETTICOATS	__ CHARM SCHOOL
__ AMIGO'S GUITAR	__ BLUE SAPPHIRE	__ CHECKMATE
__ ANGEL BRIGHT	__ BLUSHING BEAUTY	__ CHERRY MALOTT
__ ANNABEL LEE	__ BRASS ACCENTS	__ CHINESE CORAL
__ APRIL MELODY	__ BRIGHT BUTTERFLY	__ CHINQUAPIN
__ APROPOS	__ BRISTOL GEM	__ CHRISTIE ANNE
__ ARCTIC FURY	__ BROTHER ED	__ CHRISTMAS ANGEL
__ ARPEGE	__ BUTTERSCOTCH KISS	__ CHRISTMAS TIME
__ ARPEGGIO	__ BUTTERSCOTCH RIPPLE	__ CINNAMON MIST
__ AVIS	__ CAMBODIA	__ CIRCLE D
__ AZURE ACCENT	__ CAMELOT ROSE	__ CITY OF PORTERVILLE
__ AZURE APOGEE	__ CAMPUS FLIRT	__ CLAUDIA RENE
__ AZURE STRIPES	__ CANARY CADENCE	__ CLOUD CAPERS
__ BABBLING BROOK	__ CANARY FRILLS	__ CLOUDLAND
__ BACCARAT	__ CAPTAIN GALLANT	__ COCKTAIL TIME
__ BANG	__ CARMEL KISSES	__ COLLEGE GIRL
__ BARCELONA	__ CAROLANDS	__ COLLEGE QUEEN
__ BELOVED BELINDA	__ CAROLINA PEACH	__ COMMENTARY
__ BERCEUSE	__ CAROLINA RUBY	__ CONGO QUEEN
__ BERMUDA HIGH	__ CARVED ALABASTER	__ COOLHEAD
__ BEWITCHED	__ CATALINA	__ CORABAND
__ BILL NORMAN	__ CAYENNE CAPERS	__ CORALAIRE
__ BLACK SWAN	__ CELESTIAL GLORY	__ CORA LEE WHITE

__CORAL ELEGANCE	__DOT AND DASH	__FLAMING DRAGON
__COUNTRY SQUIRE	__DRAGON LADY	__FLAMING HEART
__COUNTY DOWN	__DREAM MAIDEN	__FLAMINGO DAWN
__COUNTY FAIR	__DREAM TIME	__FLAMING STAR
__COURTSHIP	__DUSKY DANCER	__FLAPPERETTE
__CRAFTSMAN	__EASY STREET	__FLASHING GEM
__CREDO	__ECHO ONE	__FLEET ADMIRAL
__CRINKLED BEAUTY	__EDENITE	__FLORADORA FLOUNCE
__CRINKLED GEM	__ED WATKINS	__FLUTED HAVEN
__CRINKLED JOY	__ELEANOR'S PRIDE	__FLUTED LIME
__CRINOLINE	__EL GRANDE AZUL	__FOUNTAIN BLUE
__CROSS COUNTRY	__EL MONSOUR	__FRENCH LACE
__CRYSTAL BLAZE	__EMMA COOK	__FRONTIER MARSHALL
__CRYSTAL BLUE	__ENTERPRISE	__FROST AND FLAME
__CRYSTAL FLAME	__EPIC	__FUJI'S MANTLE
__CRYSTAL RIVER	__ESTHER FAY	__GAY LIGHTS
__CUP RACE	__ETERNAL FLAME	__GAY TRACERY
__DAISY POWELL	__EVE	__GENTLE PERSUASION
__DANCING RILL	__EVER AND EVER	__GENTLE PRESCENCE
__DARK FURY	__EXECUTIVE	__GINGERBREAD CASTLE
__DASHING PRINCE	__FAIR AND WARM	__GINGERSNAP
__DEAR BOB	__FANFARE ORCHID	__GLACIER SUNSET
__DEBBY RAIRDON	__FAR ABOVE	__GLOWING TIARA
__DEBRA JEAN	__FASHION FLING	__GOLD CITATION
__DELICIOUS	__FAVORITE TOPIC	__GOLDEN CHORD
__DENVER DAWN	__FIFTH AVENUE	__GOLDEN FILIGREE
__DENVER MINT	__FINAL TOUCH	__GOLDEN OPPORTUNITY
__DIPLOMACY	__FIREBALL	__GOLDEN PLUNDER
__DIPLOMAT	__FIRST COURTSHIP	__GOLDEN SHOULDERS
__DISTANT HILLS	__FIRST VIOLET	__GOLDEN SNOW
__DOGE OF VENICE	__FLAMENCO DANCER	__GOLD LIGHTNING

__GOODNESS	__IMPERIAL LILAC	__LEORA KATE
__GRACIE PFOST	__INDIGLOW	__LICORICE STICK
__GRAND ALLIANCE	__INDIGO IMP	__LIGHTNING RIDGE
__GRANDIFLORA	__INTEGRITY	__LIGHT TOUCH
__GRAND SPECTATOR	__IRENE NEECE	__LILAC CHAMPAGNE
__GREEN ILLUSION	__IRISH BROGUE	__LILTING MELODY
__GRINGO	__IRISH CHARMER	__LIME SHADOWS
__GYPSY JEWELS	__IRISH LULLABY	__LORNA LEE
__GYPSY LULLABY	__IVORY GOWN	__LOVELY LIGHT
__HALLELUJAH TRAIL	__JAILBIRD	__LUCILE TOLMAN
__HAPPY BIRTHDAY	__JAIPUR	__LYNN REID
__HAPPY HOLIDAY	__JANNI	__MAD MAID
__HARMONY HOUSE	__JAVA DOVE	__MAHALO
__HAWAIIAN HOLIDAY	__JET FIRE	__MALACCA STRAITS
__HEARTBREAKER	__JEWEL TONE	__MARICOPA
__HEART OF NIGHT	__JILBY	__MARIE PHILLIPS
__HEATHER HALO	__JOLIE	__MARQUESAN SKIES
__HEATHER HAWK	__JUNA KAY	__MARSHMALLOW
__HEAVEN SENT	__JUNE SYMPHONY	__MASCARA
__HELEN TRAUBEL	__KIMZEY	__MARTEL
__HENRY SHAW	__KINGDOM	__MARVALON
__HIGH ABOVE	__KISSABLE	__MARY RANDALL
__HIGH COUNTRY	__KISS OF LEMON	__MAUDIE MARIE
__HIGH ESTEEM	__LADY MOHR	__MAY MELODY
__HIGH LIFE	__LAKE WASHINGTON	__MEADOW SNOW
__HIGH PRAISE	__LASATA	__MEDITATE
__HIGH SIERRA	__LAUNCHING PAD	__MELODRAMA
__HONESTY	__LAURIE	__MERRY RIPPLE
__HONOR GUARD	__LAVENDER SPARKLE	__MIDWEST MORNING
__IDAHO CENTENNIAL	__LEDA KNIGHT	__MILADY
__IMPACT	__LEMON TREE	__MILESTONE

__ MINNESOTA GLITTERS	__ PACIFIC WATERS	__ RESTLESS WAVES
__ MISS ILLINI	__ PALISADES	__ RETA FRY
__ MISS INDIANA	__ PARISIAN BLUE	__ RIBBON ROUND
__ MISSION SUNSET	__ PATRICIA CRAIG	__ RIPPLING WATERS
__ MODERN TREND	__ PAY DAY	__ ROBIN REDBREAST
__ MOMAUGUIN	__ PEACE PATROL	__ ROCOCO
__ MONTE SANO	__ PICTURE PRETTY	__ ROMULUS
__ MOON RIVER	__ PIERRE MENARD	__ ROSA BLEDSOE
__ MOST PRECIOUS	__ PIETY	__ ROSEANNE
__ MOUNT EDEN	__ PINK DIVINITY	__ ROSECREST
__ MOUNT REPOSE	__ PINK DRESDEN	__ ROSES IN SNOW
__ MULBERRY WINE	__ PINK FLURRY	__ ROYALAIRE
__ MUSIC HALL	__ PINK FRINGE	__ ROYAL GOLD
__ MUSIC MAKER	__ PINK 'N PRETTY	__ ROYAL TARA
__ MYSTIC MOOD	__ PINNACLE	__ ROYAL TAPESTRY
__ NEWPORT	__ PIRATE TREASURE	__ ROYAL TOUCH
__ NIGHT HERON	__ POLKA LACE	__ RUTH'S LOVE
__ NIGHTSIDE	__ PORT ROYAL	__ SABLE NIGHT
__ NIGHT SONG	__ POST SCRIPT	__ SABLE ROBE
__ NINA'S DELIGHT	__ POWER AND GLORY	__ SAPPHIRE DREAM
__ NITTANY	__ PRAIRIE BLAZE	__ SAPPHIRE FUZZ
__ NOB HILL	__ PRETTY CAROL	__ SCARLET RIBBON
__ NORTHERN AIRE	__ PRETTY POISE	__ SEABORNE
__ OCEAN SHORES	__ PRINCE INDIGO	__ SEASIDE
__ OLYMPIC TORCH	__ QUEEN'S FAVOR	__ SECRET AGENT
__ ONE DESIRE	__ QUIET SKY	__ SHORT STORY
__ ORANGE CHARIOT	__ RADIANT APOGEE	__ SHOWMASTER
__ ORANGE PARADE	__ RADIANT LIGHT	__ SIGNATURE
__ ORANGE VISTA	__ RAINBOW GOLD	__ SILENCE
__ ORCHID BROCADE	__ RAINBOW VALLEY	__ SILVER PEAK
__ PACIFIC PANORAMA	__ REGAL RUFFLING	__ SILVER SKIES

- | | | |
|-------------------------------|--------------------------|-----------------------------|
| <u> </u> SILVER TRAIL | <u> </u> SWAHILI | <u> </u> VIOLET HARMONY |
| <u> </u> SILVER WEDDING | <u> </u> TAFFY TWIST | <u> </u> VISITING NURSE |
| <u> </u> SINGING PINES | <u> </u> TAHITI SUNROSE | <u> </u> WANDERING RAINBOW |
| <u> </u> SKYDIVA | <u> </u> TALENT SHOW | <u> </u> WARLOCK |
| <u> </u> SKYWATCH | <u> </u> TAM LIN | <u> </u> WAYWARD WIND |
| <u> </u> SMART SET | <u> </u> TASTE OF HONEY | <u> </u> WENATCHEE SKIES |
| <u> </u> SMOKY MOUNTAIN | <u> </u> TAWNY MINK | <u> </u> WENATCHEE VALLEY |
| <u> </u> SOUND OF MUSIC | <u> </u> TEA APRON | <u> </u> WESTERN SUN |
| <u> </u> SOUTHERN COMFORT | <u> </u> TECHNY CHIMES | <u> </u> WHITE KING |
| <u> </u> SPANISH GIFT | <u> </u> THRUWAY | <u> </u> WHITE TAFFETA |
| <u> </u> SPARKLING CHAMPAGNE | <u> </u> TIJUANA BRASS | <u> </u> WHOLE CLOTH |
| <u> </u> SPARKLING WATERS | <u> </u> TINSEL TOWN | <u> </u> WILD APACHE |
| <u> </u> SPLASH O' PINK | <u> </u> TONI MICHELE | <u> </u> WILD GINGER |
| <u> </u> STARBURST | <u> </u> TREASURE TRAIL | <u> </u> WILD MUSTANG |
| <u> </u> STEPPING OUT | <u> </u> TRITON | <u> </u> WILD PEACOCK |
| <u> </u> STERLING SILVER | <u> </u> TROPIC ISLE | <u> </u> WILD PLUM |
| <u> </u> STYLE MASTER | <u> </u> TRUDY | <u> </u> WINE AND ROSES |
| <u> </u> SUN COUNTRY | <u> </u> TYROLEAN BLUE | <u> </u> WINTER OLYMPICS |
| <u> </u> SUNNY SPLENDOR | <u> </u> ULTRAPOISE | <u> </u> WINTER PAGEANT |
| <u> </u> SUNSET BLUES | <u> </u> UTAH VALLEY | <u> </u> WINTRY NIGHT |
| <u> </u> SUNSITE | <u> </u> VASHON | <u> </u> XMAS FIRES |
| <u> </u> SUPERGLOW | <u> </u> VELVET BRASS | <u> </u> YES SIR |
| <u> </u> SUTTER'S FALLS | <u> </u> VILLAGE GREEN | |

WRITE-IN VOTES

WRITE-IN VOTES (SECOND MEMBER OF FAMILY)

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

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YORK
BOTANICAL GARDEN



BULLETIN OF THE
American Iris Society

NUMBER 193

APRIL 1969



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THE BULLETIN

of the

AMERICAN IRIS SOCIETY

No. 193

April, 1969

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The *Bulletin* is published quarterly by The American Iris Society. Publishing office 2315 Tower Grove Blvd., St. Louis, Mo. 63110. Second-class postage paid at St. Louis, Mo., and at additional mailing offices.

Communications regarding membership in the Society, advertising, and other items of business should be addressed to Mr. Clifford W. Benson, Executive Secretary, 2315 Tower Grove Blvd., St. Louis, Mo. 63110.

Communications regarding editorial matters should be addressed to Mr. J. Arthur Nelson, 3131 North 58th Street, Omaha, Nebr. 68104. For information about membership, advertising rates, and back issues, see sections under ANNOUNCEMENTS.

All copy due in editor's office forty-five days before first of the month of publication.

The *Bulletin* is printed by The Livestock Press, Inc., 2830 "O" Street, Omaha, Nebraska 68107.

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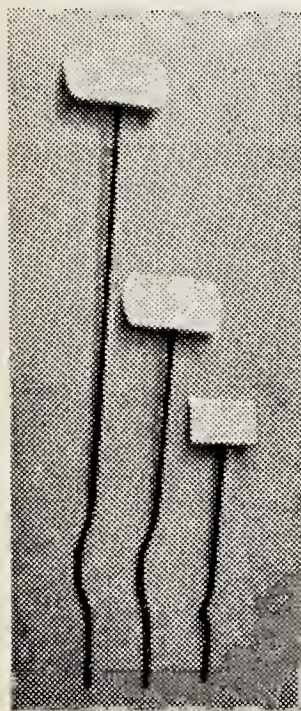
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From The President's Desk

The first three months in office have been hectic but rewarding. All chairmanships are now filled, and I believe that we have some fine leaders to continue with our national programs. They are new, of course, only in their current jobs. I suggest you study carefully the complete list of Chairmen of Standing Committees on Page 2 of the Bulletin. These people are capable and dedicated—and they can help you when you need assistance in their areas.

As expected, my mail has been heavy. The letters readily fall into four categories: (1) Congratulating, (2) Suggesting, (3) Complaining, and (4) Combining two or more of the above. I have tried to answer each constructively and objectively. Some good, useable suggestions have been received. I hope we will continue to receive others similar to these.

One of the best suggestions came from Raymond G. Smith of Indiana. (Published elsewhere in this issue of the Bulletin.) He pointed out that there is scarcely a member of AIS who does not have a close friend or relative who would enjoy a year's subscription to the Bulletin, not even mentioning the other benefits that would come with it. A membership in AIS, he said, could well be that elusive answer to the pressing question: "What can I give that will strike just the right chord, yet not be overly expensive?" His logic impressed me so forcibly that I immediately made out a check for a triennial membership in the name of my daughter, and mailed it to Cliff Benson. I hope the idea affects you similarly.

Now that the AIS Judges Training Program is successfully under way, I want to applaud the hard work put forth in many of the regions to implement the GUIDELINES FOR TRAINING AIS JUDGES. Special recognition is given to Regions 4, 17, and 18 for "breaking the trail," and proving early that the GUIDELINES are practical and can be expanded into a feasible and effective training program.

When you read this, bloom season will be getting very close, and the national convention in Milwaukee will not be far off. The program worked up by Clarence Protzmann and his committee seems to be a good one. It is possible for a serious student of iris judging to get training there under the best instructors in the nation in many kinds of irises. Ample provisions have been made also for convention attendees who seek entertainment to have fun in "Old Milwaukee." It looks like a memorable convention is in store for us all, so I hope to see you there.

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This wizardry of multicolor spiced man's imagination and interest far back in history. In 1601 Carolius Clusius described twenty-eight different tall bearded varieties. His remarks are most interesting: ". . . A long experience has taught me that Iris grown from seed vary in a wonderful way." Today, in our advanced and sophisticated age of technology, Dr. Peter Werckmeister, the renowned irisarian from Germany, in his paper *The British Yearbook, 1960*, pp. 110-123, "Sterility, Chromosome Conjugation, Amphiploidy", observes that one of the special gifts of the iris family is its possession of that ability to offer infinite and complex diversification, due to that particular capacity of the plant, in the process of reproduction, to freely exchange chromosomes, parts of chromosomes, in recombinations that dizzy the understanding. But let us consider the origins of just one color—the brown iris.

SOME EARLY PIONEER EVOLVEMENTS

The early collectors, those pioneers who assembled the then known irises, did not enjoy the brown colors we experience in irises today. In the early terminology of describing irises, besides mentioning irises that were selfs and bicolors, as well as plicatas, there also was mention of squalens and sambucina. These terms we no longer hear. They denoted a type of coloring applied to smoky-toned kinds, often those with shades of a brown or purplish tone. Another phrase used particularly in describing lighter tonal kinds was the term "shot shades." In fact, for many years there were only the smoky, dull colored blends, and the early gardeners did not share with us the bright and varied, spicy brown, or lustrous copper, as lustrous as a butterfly's wing, gleaming and unique. It is interesting to unravel the skein of brown iris development, and a particularly engrossing and exciting story is the origin and eventual evolvement of our present-day varieties. The accumulation of varieties, and the important tetraploid development, traces back to the father of the modern iris, Sir Michael Foster of Cambridge University in England, who worked between 1890 and 1905. Without the discovery and introduction of the Levantine tetraploid species, our present-day irises would not be possible. Likewise, we are in debt to two early French personalities whose collections in France, assembled in the years 1820 to 1850, were particularly important as the compedia of the early diploid varieties centering, in the main, on derivatives of *I. variegata* and *I. pallida*, and various intercrosses, mutants and recombinations of these families.

THE THREE-PRONGED ORIGINS OF BLEND IRISES

The development of the brown iris owes the very first, primary origins to three sources, the material existing in France, the tetraploid families from England and the concurrent interfusions showing in America. A reference must be made to the important breeder who followed the two early French

workers, namely Mons. Vilmorin, member of a French firm renowned in many lines of horticultural endeavor and discovery. The introduction of ELDORADO '10, a diploid blend, and the important brownish purple AMBASSADEUR 20, was significant. If these did not figure directly in the ancestry of our modern browns, they did provide a stimulus in showing the possibilities of greater things to come. In France the blossoming of, shall we call them, the vintage years' work of Mons. F. Cayeux yielded that happy combination of what seemed to be the three necessary components to produce brown irises. These units are the co-pigmentation possible through the diploid families of pallida-variegata ancestry, plus the interjection of the magic of tetraploid families, with all the blessing tetraploidy offers in the multiplicity of colorations. The production of the variety JEAN CAYEUX, which embodies the three-way combination of pallida-variegata and tetra-germ plasms, through the varieties PHYRNE and EVOLUTION . . . ancestors of JEAN CAYEUX . . . offered the key which future breeders would use to unlock the right combination.

We have mentioned two of the three areas of origin of the brown iris. Next let us travel across the waters from Europe to America. There are two pioneers in the cornerstone-laying process from our country. One was Mr. E. B. Williamson, that gifted irisarian from Bluffton, Indiana, who was using the tetraploids, and who gave us LENT A WILLIAMSON '18, which, in turn, gave us DOLLY MADISON '27, a big but smoky blend, of which more anon.

Centers of iris culture seem to spring up in many diverse and varied spots. And, interestingly, like the dragon's teeth sown by Hercules, wherever the iris went, iris breeders seemed to spring up! Another center of iris culture at this time was Nashville, Tennessee. Here Dr. J. H. Kirkland, Chancellor of Vanderbilt University for many years, hybridized irises and carried on some highly individual work. His production of COPPER LUSTRE '34, a very fine coppery brown iris, in its day won the Dykes Medal (1938), a tribute to its uniqueness and original color. Nashville, known as Iris City, likewise was the home of Clarence Connell of red iris DAUNTLESS fame, and Mr. Jesse Wills, one of our past-presidents of AIS, whose iris CHIVALRY also was a Dykes Medal winner. And there were others.

Westward next to the plains of the Midwest, and Omaha, Nebraska, where the corn and wheat growing farmers, the Sass brothers, again appear with their energizing influence. Their production of two or three irises, in particular, again gave some of the necessary components for the right combination to make future brown irises possible. Their significant irises in this effort were the blend RAMESES '29, SANDALWOOD '37, and that great breeder, PRAIRIE SUNSET '39. The latter is a particularly important purifier, sharpening and making brighter, without the smoky cast of the blends of early times. Brown irises could not come forth until the "cloud", so to speak, had been removed from the heavily coalesced, smoky kinds previously existing.

MILEPOSTS IN THE BROWN ADVENTURE

Closer now, to the present time, it is apparent that some of the true mileposts in this adventure to brown irises loom. The mention of this color class invariably brings to mind a breeder with singular proficiency in the

production of brown irises. As the progression of iris development germinated in Europe and migrated to America and advanced ever westward, it seemed appropriate for Dr. R. E. Kleinsorge, a practicing physician of Silverton, Oregon, to name one of his browner irises FAR WEST '36. This iris was from a cross of a seedling of Dr. Kleinsorge's, combining the work of two French breeders: MME. CECILE BOUSCANT (Denis) with DOLLY MADISON (Williamson), and then taking this hybrid and crossing it with PRESIDENT PILKINGTON (Cayeux). It should be kept in mind that as recently as the 1930's the irises we called brown were still in the embarkation stage. Finer, browner irises were yet to arrive. FAR WEST was a terrific breeder. The student of family trees can spend many, many hours studying the many intricate crosses, back crosses and varied recombinations Dr. Kleinsorge so knowledgeably did. The production of his TOBACCO ROAD, a grandchild of JEAN CAYEUX, as well as a double dose from FAR WEST, was the real landmark. Here we were seeing **brown**, and the combination of TOBACCO ROAD and the related MEXICO hit the jackpot. From this cross, and a very small number of seedlings, the following irises were named: BRYCE CANYON, CHAMOIS, GOOD NEWS, PRETTY QUADROON and VOODOO. I know of no one cross that has ever produced more fine irises. This leads up to an interesting story.

Mr. Grant Mitsch, of daffodil fame, located in Canby, Oregon, and one of the most personable plantsmen I ever have met, simply loves all flowers. He has to resist crossing many flowers. He tried his hand at tulips just to see what happened! He noted in Dr. Kleinsorge's garden that famous cross that produced the quintet of blends. And he, likewise, was fascinated by the fact that so many good irises came from a relatively few seedlings. So he wondered what would happen if he raised a large number of seedlings. To this end, he re-made the cross of MEXICO X TOBACCO ROAD, and he selected what seemed to him to be two fine blends. One is the famous INCA CHIEF, that we used as the big blend breeder in our brown work; and the other is HERMIT THRUSH. To my knowledge this is the only time that I have known that a breeder repeated a cross and equaled, or, in this case, I think, excelled the product that was first achieved.

A second western champion of brown irises was Mr. Fred DeForest, a friend of Sydney Mitchell, who came to Oregon to carry on his specialized work. His interest was in numerous colors. His specialty was the feature of broad petalage, and a well-finished flower, devoting many hours of study behind selective matings. Mr. DeForest's ARGUS PHEASANT '48 and Dykes medalist of 1952, was the most widely known and appreciated of his brown irises. Perhaps a moment's pause for reflection might be worthwhile here. With the introduction of TOBACCO ROAD, along with PRAIRIE SUNSET, ARGUS PHEASANT and INCA CHIEF, we come very close to the present day. These are the irises that figured prominently in the lineage of many of the brown irises. In fact, it is a matter of record that our present-day brown irises are a rather closely knit, akin relationship, tracing to a comparatively few common ancestors.

One of the problems with some of the early brown irises was their less-than-average vigor. Some climates have a certain degree of difficulty in having the brown iris bloom as freely as others, or multiply with equal ease.

In surveying the matter, our own breeding efforts were based on several surmises that we tried to carry out. We feel that there have been some rewarding products. But we still are experimenting, trying some new avenues that might add a new dimension so far not possessed by the brown varieties we grow. It seemed that since the browns like TOBACCO ROAD needed an infusion of vigor, we would have to step out, so to speak, from constantly using cousins in breeding. To this end, two colors we used amalgamate with the blends were the reds, because they too inherit a type of co-pigmentation, and the yellows, which are a component part of their coloration. We soon found that the brown blend coloring certainly existed within the more recessive, and we had to back cross to achieve any blends.

INCA CHIEF was one of the bases on which we built. Its selection, from over five hundred seedlings, as the most vigorous, and yet with many good qualities that we fanciers like, such as color, form, etc., made this seem logical. So we looked at it this way. Combine the Kleinsorge browns with the Sass midwestern strain. To this end, we crossed BRYCE CANYON (Kleinsorge) X SUNSET SERENADE (Sass) to combine both the Sass growability and the clarifying effects of PRAIRIE SUNSET through SUNSET SERENADE. This seedling was named COPPER MEDALLION, and, in turn, was then crossed with INCA CHIEF, giving us BRASS ACCENTS, one of the very satisfactory browns. A near corollary is BRONZE BELL, a direct cross of COPPER MEDALLION with INCA CHIEF. The growth habit of BRASS ACCENTS has been pleasingly satisfactory.

“Growability” was what we were searching for. After the considerations given the Sass line which we thought worthy, we cast about for another source of bloodline that we thought might be helpful. Over the years we have had a particularly rewarding and provocative correspondence with the late Mrs. Jean Stevens of New Zealand. A product of the lively discussions was the examination of a number of irises that we thought particularly fine garden subjects. I like the word “growability.”

To this end our OLYMPIC TORCH, derived from INCA CHIEF combined with seedling work of Mrs. Stevens’ WATCHFIRE, gave us what we consider one of the finer blends it has been our fortune to discover among our seedlings. We feel that the union of Stevens’ breeding with the brown material from America gave us a “swell” new iris. Perhaps OLYMPIC TORCH is too light in color to really be called a brown iris, but it, in turn, has given wonderful new irises. ETERNAL FLAME is a good example. Its breeding is (Spellbound x Inca Chief) X Olympic Torch. You will notice here the effort to combine the Sass strain through SPELLBOUND (Prairie Sunset lineage), again coupling for the end product.

At the National Iris Convention in Los Angeles in 1956, I was struck by the lack of brown irises. I did notice one variety, originating in California, that was doing quite well. It was DARK CHOCOLATE, whose breeding is Tobacco Road X (China Maid x Chosen). China Maid and the Stevens’ line had one common ancestor—an off product of red breeding through Dauntless via Miss California. (The geneology of the Stevens’ iris can be found in the Check List of 1949). So again returning to our original question . . . how can we improve the habit of the brown iris? We crossed BRASS ACCENTS with DARK CHOCOLATE. The result

was GINGERSNAP, one of the best browns we have raised. It is the fruition of blend breeding, and the reports that we are receiving is that this iris is doing well in the warmest, as well as in the coldest, sections of the country, are encouraging in this tantalizing endeavor to produce a good brown iris. It has been a real challenge to work in this blend class. We look ahead to many more possibilities. For instance, in brightness. The seedling we named GAY LIGHTS we consider one of the brightest blends we have raised. It, again, has the Stevens' iris in its family line, as well as Prairie Sunset. The actual lineage is as follows: (Watchfire x ((Argus Pheasant) x Inca Chief) x Spellbound).

What new aims should be set? Two areas capture our attention. One is the use of some material extracted from red x blend breeding. The variety RUSTICANA, while not quite as large as some of the other brown blends, is, some irisarians insist, the brownest iris ever. Its ancestry includes Pretty Quadroon, Inca Chief, Pacemaker and Cordovan. Perhaps the most ingenious animated brown and red combination is the new iris we plan to offer in 1969, named MOLTEN EMBERS. Its ancestry is yards long. In essence it is a cross of Olympic Torch with a seedling that is a combination of three generations of reds x blends, combined and recombined through the third step.

There are many more theories we would like to mention. I fear that space forbids. We have enjoyed working with the tantalizingly challenging project of developing brown irises. Few other flowers give the brown colorations we have in irises. Perhaps the chrysanthemums. Possibly some of the Philippine orchids. But for multiplicity of beauty none can equal the iris. And full acknowledgement is offered to the breeders before us who extracted some of the ore from which these gems have been refined. I think of people like Mon. Cayeux, Mr. Williamson, our revered Dr. Kleinsorge, the Sass brothers, Fred DeForest, Mrs. Jean Stevens (How we miss her!). Each in his own way posted landmarks that made our brown irises of today possible.

INTRODUCTIONS FOR 1969

STANDARD DWARF

GINGERBREAD MAN — Sdlg. M176-1. Blueberry Muffins x Gatty M595 ((Little Shadow x Zwanimir) x (April Morn x Frost Glint)). Deep brown self, large deep blue-purple beards. Startling color combination, fine form and proportion. HC 1968. 14"\$5.00

MEADOW MOSS — Sdlg. M177-1. Velvet Caper x Gatty M595 ((Little Shadow x Zwanimir x (April Morn x Frost Glint)). Light moss green, faint blended wash of light brown at hafts. Large blue-amethyst beards. Closed standards, wide ruffled falls. 14"\$5.00

TALL BEARDED

BLUE DOVE — Sdlg. 832-1. (Involving Frances Kent, Mary Randall, Pink Enchantment and Party Dress lines x Crystal Flame) x ((Pink Enchantment x Party Dress) x Fanfare Orchid)). This is the first release of work for tangerine bearded blues which are really blue. Closed, domed standards are Capri blue (Wilson 52/2), falls are several shades lighter (52/3), almost milk white. Tangerine beard. A reverse bicolor, the flowers are tailored, very well-formed, and long-lasting. Well-branched stalks and a vigorous plant. HC 1968. 34"\$25.00

PEACH GLOW — Sdlg. 868-1. B17 (((Spindrifft x Jeb Stuart) x Carabella)) x Nancy Jean))) x 720-1 ((Frances Kent x Mary Randall) x Frost and Flame)). Closed standards are white, flushed rosy peach. Wide, flaring falls are white with deep melon-peach hafts, which match the beard. Very different and unusual color. Strong grower. HC 1968. 36"\$25.00

Order from this ad, or send for more descriptive list of these and previous introductions. My introductions only.

BENNETT C. JONES

5635 S. W. Boundary Street

Portland, Oregon 97221

FERDINAND CAYEUX

Jean Cayeux

(This article was adapted from a letter and notes from Jean Cayeux to Robert Schreiner).



It indeed is a pleasure to give you information on the iris works of my grandfather. I loved him very much, and with him, in the last years of his life, I began to learn iris work. During his long life, devoted only to horticultural subjects, he had a wonderful activity. He made vegetable crosses with peas, beans and cauliflower, and flower crosses with sweet peas, dahlias, peonies, poppies, callistephus, lupines, etc. He did an incalculable number of crosses.

He was born in 1864, of a nurseryman family, and I believe the "virus" of crossing plants is in our blood. His brother Henri, who was director of the gardens of King Don Carlos of Portugal and later director of the Havre gardens in France, also

was well known for his work with begonias, cannas and hydrangeas.

My grandfather began to be interested in irises before World War I, when he was about forty-five years of age, and I can tell you that irises were his preference and the work of which he was most proud. Fortunately, I have all of his record booklets since the first years, although some notes are a little hard to read because the pencil marks are a little rubbed out.

In 1904 he began to do some crosses between species, but curiously only with apogons. The first crosses on bearded irises were done in 1917 (27 crosses), and these increased to reach 600 a year between 1927 and 1932. At this date he did less crosses as he began to be ill, and he completely stopped with World War II.

All the records are in perfect order, and very precise. However, for the crosses done between 1917 and 1920, they are noted with the pod parent and several pollen parents: H 70 = OCHRACEA COERULEA X LIBERTY X SALONIQUE X KASHMIR WHITE. Between these three pollen parents, it is impossible to know which is the true parent. It's a great damage, because it would be of greatest interest for these first crosses to have the exact parentage. In 1920 and after that all crosses are recorded with only one pollen parent.

It therefore is impossible to tell exactly what cross or crosses induced tetraploidy, but early crosses were done with diploid X tetraploid. In 1919 there appeared in the breeding program such tetraploids as SHELFORD CHIEFTAIN, ORIFLAMME, ALCAZAR; in 1921 *I. Ricardi* and AMBASSADEUR; in 1922 MAGNIFICA; in 1923 DOMINION; in 1924

BRUNO, CARDINAL and later PURISSIMA. OCHRACEA COERULEA appears in 1920, and was during the next five or six years with several hundred crosses.

Just after the end of the war, my grandfather collected almost all of the clones available, and I counted not less than 250 clones in the collection listed in his book of 1921. It truly was a good material to work with at this time.

To answer more directly your inquiries about the red and brown ancestors, BRUNO appears in the ancestry of LOUVOIS, DEPUTE NOMBLOT and JEAN CAYEUX. OCHRACEA COERULEA appear in the ancestry of LOUVOIS, PRESIDENT PILKINGTON and JEAN CAYEUX. For JEAN CAYEUX, PHYRNE and BRUNO appear at the grandparent level on one side of the pedigree; and EVOLUTION, the pollen parent of JEAN CAYEUX is OCHRACEA COERULEA x MARCH MARIGOLD x OCHRACEA COERULEA x MARCH MARIGOLD. BRUNO appears on both sides of the pedigree of LOUVOIS, and OCHRACEA COERULEA and CARDINAL appear once.

PRESIDENT PILKINGTON also is a child of EVOLUTION (OCHRACEA COERULEA x MARCH MARIGOLD x OCHRACEA COERULEA x MARCH MARIGOLD), and thus is a half-sister of JEAN CAYEUX. BRUNO is one of the parents of DEPUTE NOMBLOT.

Editor's note. It is indeed pleasant to have this thrilling history out of the monumental past, about a French iris breeder who won ten Dykes Medals in ten years. Despite the Herculean efforts of those who published the early Check Lists, the ancestry of the modern brown irises cannot be traced too definitely except through such records as Ferdinand Cayeux kept so meticulously. But for those of us who have checked as best we could, it seems clear that such Cayeux irises as EVOLUTION, JEAN CAYEUX, PRESIDENT PILKINGTON, LOUVOIS and DEPUTE NOMBLOT had an immense influence in the development of this intriguing color class.

Dr. R. E. Kleinsorge and Brown Irises

By the editors from a tape interview with Dr. Kleinsorge
by Robert Schreiner

This could be many stories. It could be the story of a young doctor who built a new home in 1914, and who employed Howard Weed to landscape the yard. Among the landscape plants were some irises advanced for that time, and this could be the story of how Dr. Kleinsorge became interested in hybridizing irises.

Or it could be the story of how Rholin Cooley came by to see these irises, received a handful of little seedlings, and thus went on to become interested in irises and to become a titan in irisdom.

It could be the story of RANGER, CASCADE SPLENDOR, SOLID GOLD and GRAND CANYON, still splendid irises in the dark red self, the yellow blend, the full yellow and the dark violet blend classes.

Or it could be the story of that remarkably small plot of ground, about 50'' by 100'', from which came twenty Award of Merit winners from 1942 to 1959. Or it could be a story in yet another vein, that of the great impact of Dr. Kleinsorge on the medicine and the education of Oregon.

But these stories await another time and another author. Here we are concerned with brown irises and Dr. Kleinsorge's role in their development.



Dr. E. R. Kleinsorge In His Garden

The story really begins with DOMINION irises, such somber blends as DOLLY MADISON, and a theory. "Buy the best that you can get . . . Inbreed and you discard the bad characters . . . If you make a few inbred crosses, you will find that you have some weak things . . . If I find the same characteristic dominant in a couple of seedlings, those are the ones I would cross . . . I never introduced a new source of pollen from any place but what I had to weed out the bad ones in it, and start again with the second generation to get anything good out of it." The goal! Well, we suspect a big yellow, for there was nothing yellow at the time except old SHERWIN WRIGHT, and Dr. Kleinsorge was engaged in the quest for a yellow, along with Sydney Mitchell and Carl Salbach.

The story begins to achieve a crescendo with the appearance of FAR WEST. "My favorite iris for hybridizing until the browns came along; you could cross it with anything and get good flowers. FAR WEST is (sdlg. 115: Mme. Cecile Bouscant x Dolly Madison) X Pres. Pilkington, and superior irises among its progeny are legion. (See *Bulletin* No. 100, Jan. 1946, pp. 63-69.)

The next great break to brown came with the production of TOBACCO ROAD, and it traces to FAR WEST on three sides of its pedigree and JEAN CAYEUX on the fourth. Old-timers still speak in tones of awe at the superb irises produced from a cross between MEXICO (tracing back to TREASURE ISLAND, PURISSIMA and DOLLY MADISON on one side, and FAR WEST and RAMESES on another) with TOBACCO ROAD. From this cross came as sterling irises as the more yellow toned GOOD NEWS and CHAMOIS and the dark browns of BRYCE CANYON, PRETTY QUADROON and VODOO. Grant Mitsch repeated this cross, and achieved INCA CHIEF, which the Schreiners used in their brown development; and TOBACCO ROAD is the pod parent of ARGUS PHEASANT, the 1952 Dykes Medal winner. It is difficult to trace an award-winning brown iris of today that does not trace back to TOBACCO ROAD.

Parenthetically, Dr. Kleinsorge speaks with pride of another such row of seedlings, the one which produced SOLID GOLD. Also parenthetically,

PURISSIMA X DOLLY MADISON produced the cream seedling No. 157, which crossed with JEAN CAYEUX, brought forth TREASURE ISLAND, the first big yellow iris on the West Coast; which crossed with FAR WEST produced such diverse greats as COPPER CASCADE, OLD PARCHMENT and GRAND CANYON. This TREASURE ISLAND line was the second of the potent breeding strains in the Kleinsorge lines. Parenthetically again, the cross of MEXICO (tracing back to TREASURE ISLAND) X GOLDBEATER (tracing back to FAR WEST) resulted in the fabulous CASCADE SPLENDOR.

BRYCE CANYON in turn produced some superb brown irises. The distinctly colored CORDOVAN is 314 X BRYCE CANYON; and GENERAL PATTON, rich reddish brown, with beards that bristled like spurs that suggested the name of the famous World War II general, is 310 X BRYCE CANYON. Roy Brizendine's MILLIONAIRE also has a liberal dosage of BRYCE CANYON in its makeup.

The richly colored EL PASO, the next in the line of browns, is TOBACCO ROAD X GOLDBEATER.

MEXICO X the same sdlg. 314 (above) produced THOTMES III, named after the Egyptian Pharaoh who married an Hittite princess and who, in her honor, sent plant scouts into the surrounding territories to gather and bring back new forms of plant life, and thus introduced into Egyptian gardens irises. THOTMES III, in turn, X PRETTY QUADROON presented the 1959 AM winner, BEECHLEAF.

But the story implies more than a successful line of browns. FAR WEST could have been an accidental and lucky cross that could have happened to any of us, but what happened after that testifies richly to the genius of the man, his powers of observation, his astute judgment, and his carefully planned and studied crosses. Perhaps nowhere have so many superb irises come from such a small seedling patch, and irises of today are richer because of FAR WEST, TOBACCO ROAD, MEXICO and TREASURE ISLAND, and the hybridizing of Dr. R. E. Kleinsorge.

INTRODUCING FOR 1969

RICHWOODS (Herbert S. Schafer). Sdlg. 2-06A. Pink Plume X Lavendula. TB. 28-30". M-L. Ruffled standards of butterscotch with light infusion of lavender. Ruffled falls lavender-violet with heavily laced brown edging. Large flower with orange beard. Average increase and fertile both ways. Guested at Milwaukee convention. Region 9 Regional Test Garden Award 1967\$20.00 net

HERBERT S. SCHAFFER

1638 West Glen

Peoria, Illinois 61614

THE BROWN TRAIL

Henry Sass

Our work with brown irises was rather incidental, for we were working toward clear colors, and most of our visitors and customers were interested in these clear colors. However, brown irises would "pop" up in the seedling beds, and we did some work with them.

The earlier yellows were brassy yellows, due to too much brown. Finally, Hans P. Sass named one NEBRASKA. It was a near variegata with clear yellow standards and yellow falls heavily marked brown or red-brown. NEBRASKA X RAMESES gave AL-LU-WE, which we placed in the blended variegata class. Its standards had a lot of brown, and the falls were much darker.

I am sorry that I do not have the parentage of 19-29. It was a light brown with life. At times it appeared gray and at other times displayed rays of pink. I do know that it came from the MIDGARD line which gave AMENTI, AMITOLA, RAMESES, PRAIRIE SUNSET, etc. When Mr. D. F. Hall saw 19-29 for the first time, he offered Hans Sass five dollars for a bud of it to take home to use in his breeding program.

RAMESES, appearing often in the pedigrees of award-winning brown irises, is King Tut x seedling, and is a blend of pink and yellow. The standards are tourmaline pink, according to Ridgway, but to the naked eye it appears more brown than pink. It has the ability to show many different colors in its seedlings. AMENTI and AMITOLA (Midgard X Rameses) are sib seedlings. AMENTI is on the brown side and AMITOLA on the pink side. AMITOLA was by far the more popular of the two. MATULA (seedling X Amitola) is a reddish blend. This is where the red of KING TUT made its appearance, and this red seemed to be dominant in its seedlings.

SANDALWOOD (Old Gold x *trojana*) X Amitola has a very brown effect, and most of its seedlings were on the brown side, especially if used with brown irises. PRAIRIE SUNSET (Sandalwood X Amitola) shows a lot of brown, but the other seedlings from SANDALWOOD had much more brown. This may be a case of the pink from AMITOLA being used twice, thus checking the dominance of brown in SANDALWOOD. PRAIRIE SUNSET has the ability to clear up the muddy colors in brown irises, and consequently appears in the pedigrees of many of our browns. The pedigree of PRAIRIE SUNSET appears on page 13 of the January 1966 *Bulletin*.

Another iris which has the quality of reducing the muddiness in browns is CHANGING LIGHTS, which goes back to Prairie Sunset and Ola Kala. Roy Brizendine. Helen Reynolds and John Ohl have used CHANGING LIGHTS considerably with browns, and have demonstrated its capacity to clear up color.

Crossing AMITOLA, PRAIRIE SUNSET, MATULA, SANDALWOOD, and scores of unnamed seedlings known as the RAMESES line continued year after year. They were all referred to as blends. Some went into the yellow color and others would show more pink. 50-36, a blend of brown and yellow, which Mr. Hans Sass referred to as his yellow RAMESES, crossed with Matula gave RAINBOW ROOM, which has a lot of

brown in it, and the brown is dominant in its offspring. The yellows would get clearer by line breeding, and crossing one of these yellows with a brassy yellow from Golden Age gave OLA KALA.

(Golden Age x Prairie Sunset) X Ola Kala gave a nice brown blend, which crossed with Tobacco Road gave NEBRASKA SUNSET. SUNSET SERENADE (Golden Age X Prairie Sunset) was quite dominant in showing brown in its seedlings.

It seems that using the RAMESES or PRAIRIE SUNSET line with other browns resulted in clearer and brighter colors. I shall mention four varieties. All were topnotch irises in their time, and still today would add beauty to any garden. They are: 1. BERMUDA SAND, where Rameses appears twice in the pedigree. 2. COPPER MEDALLION, with Sunset Serenade as one of its parents. 3. MIDCONTINENT, with Matula in the early stages of its pedigree. 4. LIGHTHOUSE, a seedling of Rameses.

THE RED DOUGLAS crossed with PRAIRIE SUNSET gave many fine reds among its seedlings. These reds were conspicuous with their brown hafts and no haft markings, a character which came from The Red Douglas and which is in many of the modern red irises.

SIEGFRIED ((Al-Lu-We) X (Jubilee x seedling)) was one of the first yellow-ground plicatas. Its markings of brown came from Al-Lu-We.

BALI ROSE (Royal Coach x Sandia) X Tobacco Road was the closest to red among a fine batch of seedlings from this cross. The others were browns, and I have regretted many times that this series was not continued. BOLD COPPER (45-70 X Tobacco Road) was considered by me to be a fine iris. 45-70 was a blend from the Rameses line that drifted to a yellow blend by selective breeding. 50-522, a seedling of Bold Copper, shows a lot of brown, and although this iris is eighteen years old, it is one of the few irises I still have.

I consider TOBACCO ROAD a real advancement in the development of brown irises.

Some Notes On Browns

Jesse E. Wills

People may say of a red iris, "That is not really red.", or even of a blue, "That's not quite blue.", but with brown irises there is no mistake. They are really brown.

Probably this is because brown in irises is not a primary or pure color, but is a mixture. Browns do vary, of course, from the dull color of mud to a bright glitter of metallic copper or bronze. A brown may be the color of gingerbread or it may be the darker brown of chocolate. It may be some shade of tan or buff. It may be dull, mixed with purplish shadows; or it may be one of the bright bronzes or coppers mentioned above. On the copper side the brown irises merge into the reds, and on the tan or buff they merge with apricot, and with the pink, rose, or salmon blends. If you want brown, all that it is necessary to do to get good ones is to cross something like ETERNAL FLAME with another brown or tan, or perhaps a copper-red.

The browns go pretty far back in iris breeding. There were good browns before there were really good yellows, which is interesting, since yellow is

one constituent of them. This was blended with dull purples or smoky grays to give the brown. One of the first, and an ancestor of many of the later ones, was JEAN CAYEUX from France. Chancellor Kirkland had a strain of irises that mingled copper and rose and brown. From these came COPPER LUSTRE which won the Dykes Medal in 1938. It did not prove, however, as good an iris as the more rose JUNALUSKA, from the same breeder, which was runnerup in the same year. I can remember Dr. Kirkland in the last year, or next to the last, in which he saw his irises, sitting in rapt admiration of BROWN THRASHER which really was a lovely, bright brown and which won an Award of Merit. Main credit for the browns must go to Dr. Kleinsorge and his iris FAR WEST, which proved to be one of the great parents of iris history. I still have one of the old Cooley catalogues which contains a very good full page picture of it. A few of the early colored pictures of irises were as good as many of our latest ones. FAR WEST was not a brown, but a subtle yellow blend which led to brown.

There is an interesting article on FAR WEST with its family tree and those of some of its descendents in Iris Bulletin 100 for January 1946. FAR WEST went back to two dullish blue blends, DOLLY MADISON, by E. B. Williamson, and PRESIDENT PILKINGTON by Cayeux. Mr. Williamson used mixed pollen so DOLLY MADISON might contain anything, but Mr. Hall found it also an interesting parent as he worked in the line which led to his shell pinks.

Here are some of the key irises FAR WEST produced for Dr. Kleinsorge. AZTEC COPPER was from Far West x a tan seedling. TOBACCO ROAD was from Aztec Copper x (Far West x Jean Cayeux). MEXICO was from two yellow seedlings, one coming from Rebellion X Naranja, the other from Far West x Rameses. This last was interesting because it brought in Rameses by Sass, and was an outstanding parent in a variety of colors. BRYCE CANYON came from Mexico x Tobacco Road. Mexico also proved to be a good parent as did Bryce Canyon.

Other breeders besides Dr. Kleinsorge found TOBACCO ROAD a welcome gift. It might not grow too well and only bloomed occasionally; but when it did bloom, it was wonderful for crossing. Fred DeForest crossed it with his red-brown CASA MORENA and got ARGUS PHEASANT, which won the Dykes Medal in 1952. Grant Mitsch is a very outstanding breeder of daffodils who has played with crossing irises occasionally. He got INCA CHIEF as well as several other good seedlings from the same cross of Mexico x Tobacco Road that Dr. Kleinsorge used. INCA CHIEF in turn has proved a very fine parent.

In looking over my records, I find I have named quite a number of browns. Some were from deliberate crossing for browns or tans, though this has never been a major interest, while others came from crosses of red or pink or yellow blends. I would like to comment on a few that I have introduced. None of these are recent, or of any special value now, but they illustrate breeding. RUSSET WINGS was one of my more popular irises right after CHIVALRY, and would probably rank third after CHIVALRY and STARSHINE. It came from Old Parchment x Stardom. OLD PARCHMENT was a Kleinsorge iris that came from Treasure Island x Far West. Before he got his pink blends, Dave Hall worked a good deal

with bronze and yellow blends and STARDOM was one of the best and brightest of these. CENTURIAN was a good iris in its day. It came from Hindu Queen x Tobacco Road. HINDU QUEEN was one of my seedlings never introduced that came from Rameses x (Jean Cayeux x Conestoga). The last was one of Dr. Kirkland's blends. BRONZE ARMOR came from Centurian x Argus Pheasant. It was nice but it had too much texture veining to suit me. SPANISH MAIN came from (Prairie Sunset X Lancaster) x Bryce Canyon. This was a big, wide iris of good color and form which was too soft in the sun. Lack of substance sometimes developed from the pod parent which went back to Prairie Sunset. DARIEN was from an unusual cross, Fort Ticongeroga from Kenneth Smith x General Patton from Kleinsorge. It is entirely possible, but I have sometimes wondered whether its parentage was correct. DARIEN was an iris of very nice form, medium size, and a rich, beautiful brown color. It made small rhizomes, however, and perhaps did not grow too well. A little bit of it is still growing in my garden and people still notice it and admire it.

Many breeders produced a few browns. Back in the forties Mrs. Nesmith produced one of her best irises in SUMMER SONG, which was long a favorite of mine. This was an orange buff self that came from (Sunset Serenade x Sequatchie) x Bryce Canyon. Sunset Serenade was a Sass iris that derived from Prairie Sunset, and Sequatchie was from Wentworth Caldwell and went back to Jean Cayeux. In recent years Chet Tompkins and the Schreiners have produced a number of very fine browns.

THAT BROWN IRIS

Roy Brizendine

A brown iris suitable for the changeable weather of the Midwest had intrigued me since the mid-forties. Most so-called brown irises of that period were beautiful for less than two hours, and then would "burn" to a white parchment in our hot sun. We had never cared for any iris with haft markings, but most of the brownish irises had them.

We had been crossing the best irises we could obtain rather aimlessly, with little apparent progress. There roughly were three chains of iris lineage that had been producing browns: The PRAIRIE SUNSET chain from RAMESES up through AMITOLA and PRAIRIE SUNSET to OLA KALA; the TOBACCO ROAD chain from DOLLY MADISON, PRESIDENT PILKINGTON, JEAN CAYEUX and FAR WEST; and the DOLLY MADISON, PURISSIMA, JEAN CAYEUX, TREASURE ISLAND chain. From these last two lines came BRYCE CANYON, probably the best from these lines to date.

In our annual visit to the Sass Gardens in 1950, we watched for browns or deep golds that seemed to have very little haft markings and which seemed to resist the hot sun. The Sass' allowed us to obtain a number of their latest developments for breeding purposes. One of these, S-50-181, was later named CHANGING LIGHTS. The brilliance of this golden brown iris still outshines most of the irises of today. We found that it did not fade, and its hafts were clean. Its ability to transmit these qualities to its progeny made it a most valuable breeder as well as a fine garden variety.

A cross of ARAB CHIEF X BRYCE CANYON that bloomed in 1952

produced a deep orange-brown and was numbered B-41-52. I noted in the description that "It stood out in the garden like a light, and seemed to be illuminated from within." It was a natural to make a cross of CHANGING LIGHTS X B-41-52, and from this we obtained MILLIONAIRE. It inherited the cleanness and brilliance of both parents. MILLIONAIRE'S lateness of bloom, its medium height and the many flowers it produces has made it an ideal plant for the Midwest. A new line of "orange-rust" brown seedlings from the MILLIONAIRE family have rewarded us for our labors. ROYALAIR is from this line.

PRAIRIE SUNSET perhaps was one of the greatest single advances made in the early day browns, and appears in the lineage of many, many irises. This is the iris credited more often than any other with clearing up the brown color. The "gold dust" found on most of its descendants gave them a "life" and brilliance they needed. TOBACCO ROAD probably can be credited with the deep brown colors of today. Its ability to transmit this deep coloring to its progeny is shown in many of the deep browns we see today.

The many beautiful new brown irises we see in our gardens attest to the persistence and dedication of iris breeders, most of whom are doing it as a hobby, with little or no reward except the pride of accomplishment. I could not truthfully pick out a few of the present day introductions as being the best to date. Only time tells us which iris will perform the best in many areas.

There still are many avenues of improvement open to energetic breeders in the brown lines. The problem of "sunburn" still is a major breeding problem. I think a lot of this can be overcome with better substance. Then, for those who like the laced flower, there is the problem of the "over-all" coloring that is inherited from the laced parent. We did produce several smooth brown selfs with heavy lace, but found we liked the more "tailored" look in the brown.

Prospective new introductions should be "gusted" in a number of different areas to see how they will perform away from home. This is especially true of the browns, which so often become faded rags in some of our hot windy areas.

The Browns In Irises

The Editors

The browns in irises always are fascinating to many of our iris gardeners, and at times, judging from the awards they have won in these periods, they have captured the imagination of all of us. We now, with the coming of browns that tend to sparkle, seem to be on the threshold of another such era.

We hesitate to introduce a discussion of color in this article, for we are painfully aware of the admonition of an authority whose name we now cannot recall that if a discussion of color is short and easy, it is not accurate, and if it is accurate it neither is short nor easy to understand.

But perhaps a thumbnail sketch of color may help us to understand this color we call brown. Anyone can conduct the experiment of passing sunlight through a prism on to a white screen, and see the six colors in the full

range which some call "natural" colors: Red, orange, yellow, green, blue and violet. It is these six basic colors, with their innumerable tints and shades, combinations and mixtures, tones, chroma, values, brightness, saturation and intensities, etc., which give to us the wide panorama of "color" which we see all about us.

One of these colors is orange, and it is unfortunate that the flamboyant full orange darkens into brown, which except for the student of color, seems to bear little visual relationship to its base color. But such is the case. If you will turn to a Nickerson fan, Plate 5YR (orange in Munsell terminology), you will find 5YR 7/11 and 5YR 6/11 listed as strong orange. When a moderate amount of a darkening agent is added, we get the brownish orange of 5YR 5/8. When more is added, we get the strong brown of 5YR 4/5; and when we add even more we get the very dark brown of 5YR 3/3 of the bottom swatch.

There is another color which quite frequently is called brown in irises. When you add a darkening agent to Nickerson 5Y 8/12 (vivid yellow) you get a dark yellow which often is called light brown. As you add darkening agents, step by step, you get a light olive, a moderate olive and the very dark greyed olive, all rather commonly called brown in irises. The difference between the darkened orange and the darkened yellow are fairly discernible, but as one works with the plentitude of steps between, from darkened yellow through darkened orange-yellow, darkened yellow-orange, darkened orange and darkened red-orange, there is no help but a color chart and a very accurate eye for color.

Actually, browns in irises are the results of a blending of colors, usually yellow or orange, with violet or red-violet as the darkening or greying agent. If you have a good eye for color, you can squint your eyes and get the colors in the combination to separate. For example, our notes on JEAN CAYEUX show it to be a blend of yellow and violet, the yellow Wilson straw yellow 604/2 and the violet Wilson 36/3. These colors are direct opposites or complementary, and used together have a greying effect on each other. The flowers give the general impression of being light brown like Ridgway's buffy brown, Plate XL, col. 17, line 1, O-Y.

Parenthetically, the color orange causes us problems also in the other direction. When you lighten the strong color of full orange, your first arrive at light orange, 5YR 8/7. This is recognizable as being in the orange family. But when you add sufficient lightening or whitening agents, you arrive at pale orange, which for the sake of understanding we call orange-pink. There is little visual resemblance here to the full orange, and it has caused confusion. This still is not true pink, which is a pale tint of full red, or Nickerson 5R. To the trained eye for color, the differences are perceptible.

The geneology of brown irises is an intriguing subject. We think we were most surprised at how often DOLLY MADISON appears in the pedigrees of brown irises. The second surprise was the relatively limited number of progenitors in these pedigrees, and how often the same names appear again and again.

This article should be read in conjunction with Jean Cayeux' article, especially that portion dealing with the brown irises which his grandfather used; and with Jesse Wills' article, which sheds a great deal of light on

the geneology of early brown irises.

JEAN CAYEUX, French Dykes '31, which appears in the pedigree of nearly every brown iris of merit, shows the Phyrne, Bruno, Evolution lines which Jean Cayeux writes about. It also goes back to Amas twice, once through Dominion and once through Lord of June. We were unable to trace the pedigree of COPPER LUSTRE, American Dykes '38, but ARGUS PHEASANT, American Dykes '52, begins to unfold the picture. It is a child of Casa Morena X Tobacco Road. Tobacco Road goes back to Jean Cayeux and back to the Far West-President Pilkington-Dolly Madison chain twice. On the Casa Morena side, Prairie Sunset appears, and Rameses twice. The use of Prairie Sunset is interesting, for while it is more of a yellow blend than brown, some of our good breeders feel that it had a great deal to do with clearing up the muddy colors in brown.



COPPER LUSTRE
(Kirkland '34)



WAYWARD WIND
(Baker '56)

We were unable to trace BROWN THRASHER, AM '43, and TOBACCO ROAD, AM '46, is discussed above. MEXICO, not an AM winner, but useful in breeding, shows two significant seedling numbers which appear time and again. #255 traces back on one side to Treasure Island, which is a Jean Cayeux child with pollen from a Purissima-Dolly Madison seedling. On the other side it traces back to the Far West-President Pilkington-Dolly Madison line, crossed with Rameses. Seedling #245 comes from Rebellion, which appears often in pedigrees of browns.

CASA MORENA, AM '46, which reads out as a blend of Wilson Spanish orange 010/2 and red-violet, is the result of an involved cross X Prairie Sunset. BRYCE CANYON, AM '47, is Mexico X Tobacco Road. It traces to the Far West-President Pilkington-Dolly Madison line three times, and twice to Jean Cayeux, one through Treasure Island, which is Purissima-

Dolly Madison x Jean Cayeux. PRETTY QUADROON, AM '50, and INCA CHIEF, AM '54, comes from the same parents as Bryce Canyon.

CORDOVAN, AM '51, has Bryce Canyon as one of its parents, and Kleinsorge 314 as the other. THOTMES III, AM '53, has as one of its parents this same 314, with Mexico as the other parent. We were unable to tract the parentage of this seedling. Similarly, we were unable to trace the parentage of SUNSET BLAZE, AM '53. In certain gardens and soils it appears quite brown, but generally for us it gives the appearance of near a full orange blend.

RUSSET WINGS, AM '52, on one side goes rather immediately to the Treasure Island-Jean Cayeux-Purissima-Dolly Madison and the Far West-President Pilkington-Dolly Madison lines; on the other it is a grandchild of Dauntless and Rameses. CARMELA, AM '59, more of a yellow blend, is this Russet Wings X a seedling involving Rameses twice and having Chantilly as a grandparent. BEECHLEAF, AM '59, is Thotmes III X Pretty Quadroon, whose pedigrees are discussed above. BRONZE BELL, AM '59, has as grandparents Bryce Canyon, Sunset Serenade, Mexico and Tobacco Road. The Far West-President Pilkington-Dolly Madison line is involved eight times; the Treasure Island-Jean Cayeux-Dolly Madison line three times, with Jean Cayeux appearing three additional times; Rameses three times, once through Prairie Sunset; and Rebellion two times. CARI-BOU TRAIL, AM '59, of somewhat lighter value, shows the Far West-President Pilkington-Dolly Madison chain three times, the Treasure Island-Jean Cayeux-Purissima-Dolly Madison line once. Rameses appears three times, Rebellion twice and Chantilly once.

MILLIONAIRE, AM 60, presents some new bloodlines in its pedigree, but it too through Bryce Canyon, Mexico and Tobacco Road, goes back to the Far West-President Pilkington-Dolly Madison and Treasure Island-Jean Cayeux-Purissima-Dolly Madison lines. Rameses appears five times, Prairie Sunset twice, and Ola Kala once. A new introduction is the Arab Chief line. OLYMPIC TORCH, AM '60, again through Inca Chief, Mexico and Tobacco Road, shows these same traditional lines on the pollen parent side; we cannot trace completely the pod parent pedigree, but there is the introduction of Watchfire.

BRASS ACCENTS, HM '61, shows all of the traditional lines of brown ancestors we have discussed appearing several times. Notably Tobacco Road appears three times and Prairie Sunset twice. WAYWARD WIND, AM '61, again shows the traditional brown lines with its pod parent Cordovan. With its pollen parent, it goes back twice to Rameses. The new note that is introduced is Sylvia Murray.

Not until 1968 was another brown or near brown to capture an AM. That year GINGERSNAP accomplished the feat. Three fourths of its pedigree is composed of the names now familiar from this discussion, but with one of its grandparents, Grand Marshall, there is introduced the new note of Dauntless and China Maid and Chosen.

Space permits mentioning only a few of the newer brown irises which have won some acclaim. Gingerbread Castle on the pod parent side shows through Copper Medallion, Argus Pheasant, Mexico and Tobacco Road the traditional brown parentage we have discussed in this article, but with the pollen parent adds the Defiance-Rocket-Garden Glory and Hyblaze

lines, and also shows Prairie Sunset and Rameses. Velvet Brass again shows in much of its pedigree these same traditional lines, through the use of Mexico, Tobacco Road, Bronze Bell and Cascade Splendor, but there is the addition of Fusilier, Ballet Dancer and Lady Albright.

ETERNAL FLAME through Tobacco Road, Prairie Sunset, Mexico and Olympic Torch shows the pattern to which we have become accustomed in this discussion. Tobacco Road shows three times.

We call your attention to the back cover, inside, which shows in some fashion a progression in brown irises.



Iris Society Members Honor New President

Irisarians of Huntsville and North Alabama honored William T. Bledsoe and Mrs. Bledsoe with a reception on February 9 in recognition of Mr. Bledsoe's being elected president of AIS. The event, held at the home of Mr. and Mrs. R. P. Van Valkenburgh in Huntsville, was attended by more than 100 iris lovers from Nashville, Murfreesboro, and Lewisburg in Tennessee; and Birmingham, Guntersville, Albertville, and Huntsville in Alabama. Pictured above is the highlight of the day: Presentation of Life Memberships in the American Iris Society to Pres. and Mrs. Bledsoe. Shown from left to right are T. A. Gilliam, president of North Alabama Iris Society; Mrs. Bledsoe; Pres. Bledsoe; Mrs. R. P. Van Valkenburgh, Alabama membership chairman; and Mrs. A. D. Wilder, president of the Huntsville Chapter of AIS. (Photo by R. P. Van Valkenburgh)

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1969 INTRODUCTIONS

CHARMED CIRCLE. M. 35". (HAPPY MEETING x ROCOCO) X (FULL CIRCLE x ROCOCO). Orbicular-falled plicata of roslyn blue (blue-violet) on white. Nicely ruffled, with arched standards; three branches plus terminal, and large flowers. A strong smalt blue beard adds the finishing touch. Shortage of stock plus advance reservations make the "limit: one to a customer" a necessity. HC 1968.....\$25.00

FOGGY DEW. M. 38". SIVA SIVA X DIPLOMACY. A pastel blended bicolor plicata?? The closed standards are pale, softly blended amber-cream and lavender. The flared and ruffled falls are white with a wide soft violet border, plus deeper violet plicata markings toward the haft. Lavender and light yellow style arms. Different, but subtle. HC 1968\$25.00

VAUDEVILLE. M. 36". SIVA SIVA X DIPLOMACY. A blended bicolor in an unusual combination. Buff-cream standards. Light violet falls washed aconite violet, with a paler texture-vein pattern. Delicate white spray pattern at hafts. Medium-large flared flowers on well-branched stalks.
HC and EC 1968\$25.00



CLIQUE. Intermediate, 18". (FULL CIRCLE x ROCOCO) X (Goett 4D-1: KNOTTY PINE x PAT'S PAL). The dictionary defines 'clique' as a small select circle. The iris is a dainty white-ground plicata with its circles made of narrow violet-stitched borders. White beard, violet styles, faint greenish-cream veining. Very floriferous\$7.50

PALE CLOUD. Intermediate, 21". (FULL CIRCLE x ROCOCO) X ZIP. A plicata, but giving the effect of a cool white from a distance. White standards with a half-inch sanding of light lavender blue. White falls with narrow pale lavender border. White beard. Flared, with widely rounded falls. HC 1968.....\$7.50

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- AZURE GOLD** (Hamblen) ML. 36". Enchantingly different! Standards, golden yellow (RHS 10A) shot with violet; falls, violet (87B) lightening toward the haft, bordered with yellow. Beard, orange. A generous brushing of yellow-orange (16B) at the haft adds the finishing touch. Lovely form. Excellent substance, branching, and other essentials. Lilac Champagne X (Rippling Waters x 7-55 sibbed). 7-55 is: (((Palomono x (Radiation x Great Lakes))) x ((Helen McGregor x Hit Parade) x Palomino)) x Valimar sib, blue). Sdlg. 64-16-68Net \$25.00
- LILAC MIST** (Luihn) EM. 36". Shimmering silk in translucent lavender (Wilson 637/1) with a white beard tipped cream. Beautifully formed, broad petaled flowers are nicely displayed on strong, well branched stalks. Growth is unusually vigorous. Pacific Panorama X Rippling Waters. Sdlg. 66-1. HC '68 Net ..\$25.00
- PANORAMIC** (Hamblen) EL. 36". Rich, radiant neglecta with broad, ruffled, heavily subtanced flowers. Standards of blue-violet (92C); falls, violet (87A); beard, yellow-orange (21A). Many well spaced buds on strong stalks. Personality plus! Lilac Champagne X (7-55 — see above — x (Fashion Show x Melodrama)). Sdlg. 63-7D HC '68Net \$25.00
- TOUCHE** (Hamblen) EL. 36". After six generations of crosses between pink and blue irises, and with Melodrama and Whole Cloth thrown in for good measure, this exciting bicolor made its appearance. And although it may not be the finished flower of which dreams are made, it definitely gives the impression of a pink and blue iris. Standards light red (36D) with violet midribs and veining; falls, blended violet (88A to 88B) with an elusive blue cast and edged violet (87C). A burnt orange beard adds depth. Form is pleasing with firmly held stands and horizontally flared falls. Strong, well branched stalks. Prolific bloom and increase. (Sib to Panoramic). Sdlg. 63-7B. HC '69Net \$25.00

BORDER BEARDED

- RECITAL** (Hamblen) M. 21". Charming neglecta with full cupped standards and lightly ruffled, horizontal falls. The S-shaped stem displays three well-spaced flowers of smooth texture and heavy substance. Standards are violet-blue (91D) with deeper toned midrib and base; falls, violet-blue (90B); the beard is pale yellow (4D). Multiple buds. Fun for the hybridizer! Its genes carry unlimited possibilities. Pixie Skies X (((Fair Luzon x Rosedale) x Pink Enchantment) x Garden Party). Sdlg. 63-11-6Net \$10.00

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LACED DUET (R. Smith '69) By far the best rebloomer I have ever seen and one that invites comparison with the best of the once bloomers. Very wide ruffled parts slightly laced. Standards a luscious ruffled cotton candy pink; falls mostly white with a border smoothly blended with pink, green and cream. Rather late (Oct. here) so not recommended for rebloom in climates colder than here. Net\$30

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One each of any five of the rebloomers immediately above.....\$66

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DOUBLE MAJESTY Huge violet-purple fancy.
RETURN ENGAGEMENT Cinnamon-rose fancy plicata.
FALL FESTIVAL Large but short lavender-purple fancy.
ROSE DUETTE Brilliant tangerine bearded rose border iris.
BORDER DUETTE Clean wide flaring yellow border iris.
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SWANK (Ben R. Hager). Very large medium blue Siberian iris from White Swirl X Blue CapeNET \$15.00

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HC 1968

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(Vernon Wood 1969)

Imagine a fluffy, glistening white dessert topped with a glowing red cherry and you will have a good color picture of Cherry Jubilee. Form and substance are at their best on this well-branched beauty. Much admired at the Golden Gate Convention and tops in the 1968 HC voting. Willing parent either way. Limited stock. 36". Midseason. Seedling #66-40: ((Mary Randall x May Hall) x Frilly Fringes) X Rippling Waters.
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TRALEE Net \$25.00

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A gracefully fashioned addition to the ever popular rose-pink class, Tralee carries a slight hint of apricot at the center of the falls. Large blooms are exceedingly well placed on straight, well-branched stalks. A delightful pinkish-tangerine beard completes the harmony. Extremely fertile either as pod or pollen parent. In short supply. 34". Midseason. Seedling #302-5A. Arctic Flame X Graduation Gift.
HC 1968

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Upon Request.**

TWENTY-SIX NEW MEMBERS

In a precedent shattering ceremony, presided over by Robert Minnick, President of the Greater Kansas City Iris Society and Russell Morgan, RVP of Region 18, the Kansas City club at its annual meeting inducted twenty-six life members into AIS at its yearly banquet in December. These people are:

Mr. Kay Haines Beach
Miss Mary A. Becker
Mr. and Mrs. Roy Brizendine
Mrs. Leonard J. Ebert
Mable and Nellie Fitch
Mr. and Mrs. Ross Griffin
Mr. and Mrs. C. Allen Harper
Mr. and Mrs. John R. Ince
Mrs. Charles E. Miller

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Mr. Herman J. Selle
Mr. and Mrs. James R. Stone
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Allen and Bertha Harper, Mable Fitch, RVP Russell Morgan, Nelle Fitch, Mary Becker.



Roy and Mildred Brizendine, Suzanne Stone, President Robert Minnick, Mayme and Sam Street.

1969 IRIS INTRODUCTIONS FROM GEORGIA HINKLE

LAZY RIVER (Georgia Hinkle '69). Sdlg. X-5-3Each \$25.00

34". M. An exquisitely ruffled flower of soft medium blue with gracefully arched standards and widely flaring falls. The blue coloring is enhanced by delicate blue veining over the white halo that surrounds the full yellow tipped beard. Enormous style arms are dramatized by peacock blue veining in the style crests. The mood set by this flower ranges from a warm languid river to the cool mystery of the ice grotto, depending upon the light in which it is viewed. The contradictory nature of this iris is again demonstrated by white buds edged in blue, hinting at a coming plicata but developing a full blue flower. Parentage: Eva X Dear Bob. HC '66.

MARION MAID (Georgia Hinkle '69). Sdlg. X-5-1Each \$25.00

34". E. This true daughter of EVE has inherited numerous good qualities of its parent. Wide, nearly circular falls are gently ruffled and occasionally deeply pleated. They extend horizontally before dipping. A very heavy V-shaped beard of white tipped yellow intensifies its coloring as it extends into the heart. An area of very pale blue surrounds the beard. Wide overlapping hafts. Ruffled standards, closely held yet folded outward at the base from wide style crests. Excellent carriage with 3 well-placed flowers on a 9-bud stalk. Has withstood rain, hail, wind like a veteran. Parentage: Eve X Dear Bob. HC '66.

KENTUCKY HILLS (Georgia Hinkle '69). Sdlg. X-5-2Each \$25.00

32". M. An impressive iris of quiet violet-blue yet one of magnificent proportions. Tightly held standards create a well-rounded, gently ruffled dome which crowns the rolling form of the very wide ruffled falls. A huge V-shaped beard beginning white at the tip deepens to white tipped buttercup yellow. Very large flower, excellent substance, touching hafts. KENTUCKY HILLS is a thoroughbred in every sense of the word. Parentage: Eve X Dear Bob. HC '66.

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JAMES E. MARSH and SEARCY S. MARSH

MOLTEN GLASS (Marsh '69). M. 28". Sdlg. 66-1. Prairie Blaze sdlg. X Palmer P5162F.

This border bearded has medium size flowers that are lightly ruffled, with flaring falls and stiff standards that stand slightly open, showing a brilliant deep red beard. It is a self of the smoothest and brightest orange we have seen on an iris. The flowers do not fade in the sun and have fine substance. The branching is low and excellent, carrying up to nine flowers. The blue-green foliage is very short, giving the whole plant fine balance. It is a good increaser and is fertile both ways. HM '68. \$15.00 each, two for \$25.00, three or more \$10.00 each.

SAILOR TOGS (Marsh '69). M. 34". Sdlg. 67-30. 64-31 X 65-70.

This product of two DISTANT HILLS seedlings is a self, much darker, bluer and more ruffled than Distant Hills, with heavy ruffling on the very wide, clean hafts. The smooth dark blue colored flowers do not fade and show good heavy substance. The large round falls are semiflaring with lighter blue beard. The stiff standards are ruffled and slightly open. It gives seven to nine flowers with well-spaced branching that is quite close to the stalk. A good grower with good increase. Has clean blue-green foliage. Is very seed fertile. HM '68. \$25.00 each, two for \$45.00, three or more \$20.00 each.

CHICAGO (Marsh '69). 38". M. Sdlg. 67-42. Orchid Dancer X 65-40.

A huge orchid seedling from pink breeding. This very large iris not only has huge flowers but the whole plant is oversize. It produces up to thirteen lilac colored flowers on a S shaped stalk that gives fine spacing. The ruffled standards are closed and the very wide falls are ruffled, with a lighter shading below a very red beard. This one is a very long bloomer with the last flower good. If you want to breed for size, this is the one. Fertile both ways. \$25.00 each, two for \$45.00, three or more \$20.00 each.

SAILOR TOGS and CHICAGO may be used together for the reduction in price for quantity.

PRAIRIE SKIES, our 1968 introduction (description in our ad in the April 1969 *Bulletin*) will be \$20.00 each, two for \$35.00 and three or more rhizomes \$15.00 each.

Our 1967 introduction, SKY HARBOR (description in our ad in the April and July 1967 *Bulletins*) will be \$15.00 each, two for \$25.00 and three or more \$10.00 each.

Our 1966 introductions, ORCHID DANCER, BRIGHT MOON and ORANGE TRIUMPH (descriptions in our ad in the April 1966 *Bulletin*) will be \$10.00 each, any two \$17.00, and three or more any combination \$7.00 each.

Our 1965 introductions, DISTANT HILLS, HARMONY HOUSE and PIRATE TREASURE (description in our ad in the April 1965 *Bulletin*) and our 1964 introduction PRAIRIE BLAZE, will be \$5.00 each, any two \$8.00, and three or more any combination \$3.00 each.

We give no discounts other than the deduction for quantity stated above. There will be no extras. We have no catalog or list and no other irises for sale. We will replace any losses through any cause as a courtesy to our customers, as long as we have available stock.

We wish to thank our many customers for their fine patronage in the past.

MARSH GARDENS

3904 N. Ottawa Avenue

Chicago, Illinois 60634

Old Brook Gardens

announces the introduction of two new Siberian irises
from Professor William G. McGarvey, and
wishes to call attention to the HM award to DEWFUL and the
recognition of both EGO and SUPER-EGO in the Judges Choice
for '68.

ID (McGarvey '69). 20". Velvety black Siberian from pure chrysographes breeding. This is an exciting plant which is true to species in its form. There are fine threads of gold on the falls but these can only be detected by close observation. With the introduction of ID the triumvirate of "psychological" irises named for Sigmund Freud's personality constructs is complete. ID has grown well in the cold climate of Oswego, and equally well at the Presby Garden in northern New Jersey, but it has not done well in California. This is an iris for the expert and even though it is still in short supply, its introductory price is low for that reason. (Mid Siberian bloom season).Net \$12.00

KING'S FOREST (McGarvey '69). 20". Yellow Siberian iris from pure I. forestii breeding. This plant makes an attractive garden clump. It has clear light yellow falls and standards, and is true to species in appearance. It has produced many excellent seedlings and is a sister seedling to a plant which was used by its hybridizer for production of a fertile 40 chromosome x 28 chromosome seedling. Although we have no reports of lack of hardiness King's Forest is also a plant for the expert and connoisseur.Net \$12.00

PREVIOUS McGarvey INTRODUCTIONS

The Siberians listed below and some other seedlings from the McGarvey garden may be seen among the guests at the AIS 1969 Convention. They may also be seen at Presby where they have excited those who have seen them. Stock of the first two has now increased to enable a significant reduction in price this year.

EGO (McGarvey '66). 32". This plant has very compact, deeply ruffled flaring blue flowers. A decided variation in Siberian form, EGO has had nothing but high praise. (White Swirl X McG Med B-Lt-b-sty) HM'67;-JC'68.Net \$20.00

SUPER-EGO (McGarvey '66). 32". A bright unusual flower with open ruffled and flaring form. The standards are light blue approaching white in color. The large rounded falls are darker blue at the center shading toward powder blue at the edges. (White Swirl X McG Lg-B) HM'67;-JC'68.Net \$20.00

DEWFUL (McGarvey '67). 40". This plant is a sister seedling to Ego but entirely different in form. Its name comes from the shape of the falls which form a shallow cup to hold the dew. A medium blue self with bright light blue styles. HM'68.Net \$20.00

BLUE BURN (McGarvey '68). 32". Burn is a Scottish word meaning stream or river. The light blue flower with white highlights suggests blue water turning white in its rush over highland rapids. This is a sister seedling to EGO and DEWFUL but quite different from both.Net \$30.00

FALL SHIPMENT ONLY—NO CATALOG THIS YEAR—
ORDER FROM THIS AD

HARRY B. KUESEL

19 Mary Lane

Greenvale, NY 11548

DeForests'

-- IRISNOLL --

R. 3, Box 363

Canby, Oregon 97013

LATEST INTRODUCTIONS

- SHINY BUBBLES. '69. 34 inches. Well-branched. Large flowers. Champagne ground, deeper at hafts and border. Good substance. Increases well. From a seedling involving Hall pink, Coral King, Frances Kent, Salmon Shell, and May Hall, crossed Chinese Coral.....\$20.00
- BLACK PANSY. '69. To 32 inches. Well-branched. "Black" self; velvety. Horizontal falls. Dark beard on smooth haft. Vigorous grower. Dark green foliage. From Allegiance by sdlg. of First Violet by Violet Hills, crossed Black Swan.....\$20.00
- BAYBERRY CANDLE. '69. 36 inches. Widely flaring flower of excellent substance. Standards chartreuse to lime; white inside. Styles white and chartreuse. Falls clean, light golden-olive with darker area around the beard. From sdlg. of Dawn Crest by sdlg. of Mary Randall, crossed Golden Chance. Rapid increaser.....\$25.00
- TALKING POINT. '69. 38 inches. Extra large flower having wide falls and standards. Several to the stalk. Lilac-pink blended self with bright beard. Good grower. From pink sdlg. by Apple Valley, crossed Rippling Waters.....\$20.00
- FLAXFLOWER BLUE. '67. 36 inches. Large, heavy-substanced "French Blue" with heavy, darker blue beard. Nine or more to a well-branched stalk\$12.50
- FLOATING MOON. '67. 34 inches. Spectacular flower, wide cream standards; wide, rounded, horizontal falls, cream and yellow. Several to the well-branched stalk. Good grower.....\$12.50
- SACRED MOUNTAIN. '67. 34 inches. Very large white from tangerine bearded. Flaring form. Excellent substance. Clean hafts. Good grower.\$20.00
- BLUEBELL LANE. '66. Large self of medium lavender-blue with self beard. HM '67.....\$15.00
- CADETTE. '66. Clean, sparkling white with blue on ends of falls. Wide, ruffled, flaring.....\$10.00
- BRIGHT 'N FAIR. '66. Large, bright bitone blend of gold, peach, and yellow. Tall.....\$12.00
- FETE DAY. '66. Excellent substance in ruffled, silky flowers of creamy tan and peach.....\$ 6.00
- GOLD QUEST. '66. Large "Daisy Yellow" from Dawn Crest. Deeper color on clean hafts. All-around good.....\$10.00
- CIRCLE D. '65. Extra large, flaring flowers on tall stalk. White and violet plicata. HM '68.....\$ 7.50

No catalog in '69. Please order from this page. Checks payable to Irisnoll. Extras included, your selection.

Grandeur! Beauty! Uniqueness!

5 SUPERB INTRODUCTIONS FOR 1969

POP O SHA (Mrs. Stephena Woodside) TB. 38". E-M. Symphony X Ribbon Round. Pronounced po po sha, the Shoshone Indian name for a beautiful sky-blue lake in Wyoming. Tall, sturdy, spectacularly branched stalks (4 and terminal) bear large, heavily ruffled, sky-blue flowers that are distinctively beautiful. Large, purple-based foliage; extremely vigorous and rapid of increase; in some areas may even need to be divided yearly....\$25.00 per each, net.

STEP CHILD (Mr. Bernard Hamner) BB. 26". E-M-L. Dot and Dash X Rococo. Our name is a playful reference to its gorgeous TB counterpart, Stepping Out. It is an iris that we feel can become equally famous in its class. Step Child is a vivid, royal blue-violet on white plicata. Superb, low branching (passed on to its sdlg.), with up to 11 buds per stalk. Low foliage, perfect proportion and has never grown up (see p 77, Oct. '68 AIS Bull.). This little beauty won an EC (best sdlg. in Riverside, Calif. show) and an HC in 1968.
.....\$15.00 per each, net.

GRAND JUNCTION (Mr. Forrest McCord) Siberian. 28". M. Tunkhannock X Tycoon. A grand achievement in Siberian breeding. Marvelous rounded form, jaunty, with gorgeous coloring; falls are rich bright blue with lighter spider web pattern in the throat, slightly ruffled and 2 inches across; stds. slightly darker with a touch of violet; style arms a contrasting light sky-blue. SUPERB GROWTH both in its Muncie, Indiana, home and here in Yucaipa. Created a sensation with all who saw it, thus winning an HC in 1968.
.....\$15.00 per each, net.

SARACEN PRINCE (Mark E. Rogers) AB. 28-30". EE. Tawny Empress X Kalifa Baltis. As colorful and regal as Saladin, the "Saracen Prince" of the Crusades. Stds. lavender with yellowish infusion up the mid-rib; falls are amber-buff, lightly and smoothly overlaid maroon, which lightens toward the edge; dark wine "signal" around tip of wide, brown-tipped, bronze beard; amber style arms; falls recurve; excellent substance. In our opinion, both Saracen Prince and Saracen Jewel meet the requirements as arilbreds under the new rules. Both are very lovely. HC in 1967.\$17.50 per each, net.

SARACEN JEWEL (Mark E. Rogers) AB. 24-28". EE. Tawny Empress X Kalifa Baltis. A very distinctive flower — possibly the best arilbred in our planting in 1968. Stds. maroonish rose with darker veining and yellowish midrib; falls yellow, completely overlaid maroon (the yellow showing only as a glow), darker "signal" area surrounding very dark brown beard; falls recurve on first opening, but flare as flower ages; extremely long-lasting flowers; slightly smaller than its sib.\$17.50 per each, net.

ALSO FEATURING

PICTURE PERFECT (Mark E. Rogers, '68) smooth, true peach\$20.00
SARACEN WARRIOR (Mark E. Rogers, '68) superb, dark AB\$17.50
GOLDEN SPECTATOR (Mrs. Susan Haney, '68) golden plic.\$12.50
GRAND SPECTATOR (Mrs. Susan Haney, '65) magnificent plic. HM in '67 and runnerup list JC in '68. No other like it.\$8.00

LIST ON REQUEST

PLEASE ORDER BEFORE AUGUST 5th, 1969

MARK & JEANETTE ROGERS'
SIERRA VISTA IRIS GARDEN

31933 Yucaipa Blvd.
Yucaipa, California 92399

RIVERDALE INTRODUCTIONS FOR 1969

LEMON PUFF. MDB. 7". (Dunbar Sdlg. 61-7, Pigmy Gold X Picture Yellow). Here at last is Bonnie Dunbar's delightfully perky little dwarf creation, registered in 1964 but never introduced. It was worth waiting for. Clear lemon yellow standards. White falls neatly trimmed with lemon at the hafts and styles. All set off with a creamy white beard. Splendid form and habit\$5.00

GYPSY FLIRT. SDB. 12". (Sindt Sdlg. F700, Inca Chief X Sulina). Very smooth deep rose with a distinct copper cast. Small darker area around the brilliant blue-violet beard intensifies the coppery effect of the flower. Fine form with very wide, gently ruffled petals. Vigorous growth. Floriferous\$7.50

MOON SHADOWS. SDB. 11" (Sindt Sdlg. F104, Green Spot X unknown). This was one of our favorites in our tests of Rev. Sindt's seedlings. A clear, medium violet self, set off by a creamy white beard surrounded by a darker shadow. Perky, excellently formed flowers held well above the foliage. Lightly ruffled falls are almost horizontal. Vigorous and floriferous\$7.50

PREVIOUS INTRODUCTIONS

MINNESOTA GLITTERS. TB. 28". (Bakke-Messer 1967). Honorable Mention 1968. We would like to grow enough of this one to meet the demand! A bright, fresh shade of glittering, intense apricot overlaid with a flush of pink. Dark tangerine beard. Deeply ruffled, with fine form. A vigorous grower\$20.00

PINK WHISTLE. TB. 32". (Smith 1967). A splendid non-fading pale pink, ruffled and flaring. The beard and huge stylearms are a deeper pink. Falls are so broad they touch at the haft. Very strong well-branched stalks\$17.00

GLENZULA. BB. 24". (Bakke-Messer 1967). Pretty border iris in iridescent light tan with a peach cast. Broad falls marked at shoulders in brown, blending to ivory below an orange beard. All petals and the enormous stylearms are heavily laced, and all its seedlings have been very lacy\$10.00

TIGER BLAZE. SDB. 12". (Sindt 1968). Dwarf variegata with brilliant yellow standards and rich brown falls. Very bright with carrying power\$6.00

DARK SPARK. SDB. 11". (Sindt 1968). Clear deep violet standards. Black-violet falls edged same as standards. Deep violet beard and stylearms\$6.00

PARCHMENT PLUM. SDB. 12". (Sindt 1968). Unusual combination of soft amber-tan standards and rich red-violet falls with a clean edge of tan\$6.00

SPARKLING CLOUD. SDB. 12". (Sindt 1968). A subtle, smooth blend of pale lavender and light tan. Blended gray beard. Garden effect is silvery gray.....\$6.00

GARNET GLEAM. MDB. 4½". (Sindt 1968). DIS Test Garden Certificate 1967. Fine little red-violet self with slightly darker falls. Pale blue-white beard. The garden effect is showy red. Very early and floriferous\$4.00

SUN SPARKLE. MDB. 4". (Sindt 1968). An established clump of this little guy is quite a sight. Tiny, well-formed, intense yellow flowers literally hide the foliage. Long period of bloom and a wonderful grower\$4.00

RIVERDALE IRIS GARDENS

7124 Riverdale Road

Minneapolis, Minnesota 55430

**A COMPILATION OF
POPULARITY POLL WINNERS
FOR THE LAST FIVE YEARS**

1964 through 1968
Top 100 Varieties Each Year
American Iris Society. Tall Bearded Iris
WALTER LORENZ

Highest Award listed. Awards in order of progression. (2) Honorable Mention. (3) Award of Merit (Next highest—12 each year). (4) Dykes Medal (Top Award—1 each year).

<i>VARIETY</i>	<i>Introduced Awards</i>			<i>1964</i>	<i>1965</i>	<i>1966</i>	<i>1967</i>	<i>1968</i>
ALLAGLOW	1958	3	82	....	....	....	....	....
ALLEGIANCE	1958	4	4	2	2	4	6	6
AMETHYST FLAME	1958	4	1	1	1	3	4	4
AMIGO'S GUITAR	1964	3	....	....	....	94	49	49
APROPOS	1964	2	....	....	....	....	97	97
ARCTIC FLAME	1960	3	70	86	94	....	....	....
ARCTIC FURY	1964	3	....	....	....	....	72	72
ARGUS PHEASANT	1948	4	98	....	....	....	....	....
BABBLING BROOK	1965	2	....	....	....	....	23	23
BANG	1955	3	43	51	42	72	76	76
BELTON BEAUTY	1959	2	80	98	93	....	....	....
BLACK HILLS	1951	3	83	....	....	....	....	....
BLACK SWAN	1960	3	10	16	15	19	31	31
BLACK TAFFETA	1954	3	25	36	48	80	....	....
BLUE BARON	1962	3	57	47	40	30	58	58
BLUE PETTICOATS	1965	3	....	....	....	70	61	61
BLUE RHYTHM	1945	4	94	86	....	....	....	....
BLUE SAPPHIRE	1953	4	3	4	5	10	14	14
BRASS ACCENTS	1959	3	31	33	38	43	62	62
BRAVADO	1959	3	60	71	69	88	....	....
BRONZE BELL	1957	3	74	59	79	93	....	....
BUTTERSCOTCH KISS	1957	3	21	34	29	39	64	64
CAMELOT ROSE	1965	3	....	....	....	....	44	44
CAPTAIN GALLANT	1959	3	46	43	54	60	96	96
CARIBOU TRAIL	1957	3	62	....	....	....	....	....
CASCADIAN	1952	3	84	91	....	....	....	....
CASHMERE	1959	3	84	77	78	94	....	....
CATHEDRAL BELLS	1953	3	91	79	100	....	....	....
CAYENNE CAPERS	1961	3	57	52	34	36	37	37
CELESTIAL GLORY	1961	3	30	26	20	16	51	51
CELESTIAL SNOW	1957	3	5	7	8	15	11	11
CHAMPAGNE MUSIC	1964	3	....	....	66	67	51	51
CHINESE CORAL	1962	3	40	37	33	33	40	40
CHINQUAPIN	1960	3	41	65	43	65	91	91
CHRISTMAS ANGEL	1960	3	....	....	97	83	97	97
CHRISTMAS TIME	1965	3	....	....	....	59	25	25
CHRISTIE ANNE	1964	2	....	....	....	....	86	86
CLAUDIA RENE	1963	3	....	....	76	88	91	91
CLIFFS OF DOVER	1953	3	51	61	84	80	....	....
COMMENTARY	1963	3	....	....	....	....	70	70
CORABAND	1963	3	....	....	61	50	66	66
COURT BALLET	1960	3	67	84	90	....	....	....
CRAFTSMAN	1964	3	....	....	....	....	56	56
CRINKLED BEAUTY	1961	2	....	....	82	96	89	89

VARIETY	<i>Introduced Awards 1964</i>			1965	1966	1967	1968
CROSS COUNTRY	1963	3	....	90	86	67	77
CURL'D CLOUD	1959	3	81	93	....	....	....
DARK FURY	1962	3	39	32	37	51	45
DAWN CREST	1960	3	44	74	96	....	....
DEBBIE RAIRDON	1965	3	....	....	....	....	34
DEMETRIA	1958	3	86	....	....	....	....
DENVER MINT	1963	3	....	....	....	49	27
DOT AND DASH	1960	3	15	13	19	22	36
DOTTED SWISS	1955	3	52	57	69	....	....
DREAMY	1953	3	73	82	92	....	....
EDENITE	1959	3	13	15	17	20	20
ELEANOR'S PRIDE	1956	4	11	14	24	20	28
ELMOHR	1942	4	72	67	77	90	....
EMMA COOK	1959	3	29	38	44	64	85
ENCHANTED VIOLET	1958	3	92	....	....	....	....
ESTHER FAY	1961	3	36	22	16	12	7
EVER AND EVER	1962	3	....	....	95	86	53
FIRST VIOLET	1952	4	34	35	35	47	77
FLUTED HAVEN	1958	3	48	44	32	32	22
FROST AND FLAME	1957	3	9	16	26	38	67
FUJI'S MANTLE	1966	2	....	....	....	....	56
GALILEE	1956	3	33	47	74	75	....
GINGERSNAP	1965	3	....	....	....	41	15
GLITTERING AMBER	1957	3	32	53	56	73	....
GOLDEN GARLAND	1957	3	75	85	....	....	....
GOLDEN MASTERPIECE	1958	3	65	58	51	54	....
GRACIE PFOST	1961	3	....	73	50	45	68
GYPSY JEWELS	1963	3	....	....	....	....	97
GYPSY LULLABY	1961	3	37	29	27	25	47
HAPPY BIRTHDAY	1952	3	21	21	31	57	68
HENRY SHAW	1959	3	23	18	23	18	29
HIGH ABOVE	1961	3	76	68	45	44	46
HIGH LIFE	1964	2	....	....	....	....	84
INCA CHIEF	1952	3	48	56	74	79	....
INDIGLOW	1959	3	28	24	21	27	38
IRISH LULLABY	1965	3	....	....	....	48	26
JAVA DOVE	1964	3	....	....	....	....	50
JILBY	1965	3	....	....	....	....	81
JUNE MEREDITH	1954	3	27	40	69	76	....
JUNGLE FIRES	1960	3	89	80	....	....	....
KINGDOM	1964	3	....	....	....	78	42
LADY MOHR	1944	3	78	61	79	83	97
LAURIE	1966	2	....	....	....	....	19
LICORICE STICK	1961	3	56	31	39	36	48
LILAC CHAMPAGNE	1965	3	....	....	....	70	35
LIMELIGHT	1952	3	35	49	60	69	...
LULA MARGUERITE	1956	3	54	59	81	97	....
LYNN HALL	1957	3	64	70	99	....	....
MARTEL	1962	3	....	....	72	46	65
MARY RANDALL	1951	4	17	23	28	40	72
MAY MELODY	1965	2	....	....	....	....	74
MELODRAMA	1956	3	6	12	21	28	54
MEMPHIS LASS	1957	2	98	....	....	....	....
MILESTONE	1965	3	....	....	....	98	55

VARIETY			<i>Introduced Awards</i>	1964	1965	1966	1967	1968
MILLIONAIRE	1958	3	52	54	59	62	....	....
MISS INDIANA	1961	3	92	96	67	65	83	....
MISSION SUNSET	1963	3	....	....	98	....	....	....
MOON RIVER	1963	3	....	....	91	80	59	....
MUSIC MAKER	1963	3	....	....	....	73	43	....
MY HONEYCOMB	1959	2	89	96	100	....	....	....
OLA KALA	1943	4	94	74	....	....	....	....
OLYMPIC TORCH	1958	3	14	11	18	17	32	....
ONE DESIRE	1960	3	71	66	41	24	24	....
ORANGE PARADE	1961	3	16	10	11	9	10	....
PACIFIC PANORAMA	1960	4	19	9	4	6	9	....
PALOMINO	1952	3	45	64	86	....	....	....
PATRICIA CRAIG	1962	2	....	....	....	....	91	....
PIERRE MENARD	1948	3	42	50	58	53	91	....
PIETY	1960	3	87	91	62	55	60	....
PINNACLE	1949	3	67	63	73	83	97	....
POET'S DREAM	1958	3	79	....	....	....	....	....
POLKA TIME	1957	3	55	86	55	86	....	....
PRETTY CAROL	1957	3	97	42	52	57	91	....
PRINCE INDIGO	1964	3	....	....	84	55	41	....
RADIANT APOGEE	1966	2	....	....	....	....	17	....
RAINBOW GOLD	1960	3	18	19	24	23	33	....
REHOBETH	1953	3	76	99	....	....	....	....
RIBBON ROUND	1963	3	....	81	65	31	39	....
RIPPLING WATERS	1961	4	8	5	3	1	3	....
ROCOCO	1960	3	12	8	7	7	12	....
ROYAL GOLD	1966	2	....	....	....	....	77	....
SABLE NIGHT	1952	4	20	25	30	35	63	....
SKYWATCH	1964	3	....	....	47	34	21	....
SNOW GODDESS	1955	3	47	44	57	61	....	....
SOARING KITE	1958	3	....	95	....	100	....	....
STEPPING OUT	1964	4	....	....	10	2	1	....
STERLING SIVER	1963	3	....	72	53	26	13	....
SWAHILI	1965	2	....	....	....	....	90	....
SWAN BALLET	1955	4	37	41	68	99	....	....
SYMPHONY	1958	3	69	77	88	....	....	....
TAHOLA	1956	3	61	76	....	....	....	....
TEA APRON	1961	3	....	93	89	90	82	....
TECHNY CHIMES	1955	3	26	30	36	41	70	....
TOLL GATE	1959	3	....	99	....	....	....	....
TOP FLIGHT	1953	3	88	....	....	....	....	....
TRITON	1963	2	....	....	....	....	86	....
TRULY YOURS	1949	4	50	46	63	77	....	....
ULTRAPOISE	1962	3	98	27	14	8	5	....
UTAH VALLEY	1959	3	66	39	45	52	80	....
VALIMAR	1958	3	63	69	82	92	....	....
VIOLET HARMONY	1952	4	7	6	13	14	16	....
WABASH	1937	4	94	89	....	....	....	....
WAYWARD WIND	1958	3	59	55	63	62	75	....
WENATCHEE SKIES	1963	3	....	....	....	....	86	....
WHOLE CLOTH	1958	4	2	3	6	13	18	....
WILD GINGER	1962	3	24	20	9	11	8	....
WINE AND ROSES	1963	3	....	82	49	28	30	....
WINTER OLYMPICS	1963	4	....	28	12	5	2	....

1969 INTRODUCTIONS

REX P. AND ALTA M. BROWN

12624 84th Ave., N.E.

Kirkland, Washington 98033 (Seattle area)

No catalog this year. Please order from this ad and include 50¢ extra for packing and mailing. Gift with every order. All varieties Net.

TALL BEARDED

GALA AFFAIR. # 64-63-60. June Symphony X Melodrama. 36". Ruffled, closed standards of blended orchid and tan, deeper orchid midrib; ruffled, semiflaring falls of bright red-violet with quarter-inch band of blended tan; lacy orchid style crests and gold beard. Large flowers; excellent stalk with three branches and 9 buds.\$30.00

IVORY FLUTE. # 63-86-14. Queen's Choice X Lovilia. 36". A large, heavily fluted and laced flower of greenish ivory-white with smooth brushing of yellow at the hafts and yellow beard. Four-way branching and 10-12 buds for long bloom season.\$25.00

LOVELY BALLERINA. # 64-61-34. Melodrama X Seafair Ballet. 32". Closed ruffled standards are pastel lilac and the broad, ruffled horizontal flaring falls are bright orchid-pink, slightly lighter around the white beard. Three branches and 9-10 buds.\$25.00

PEACH RIM. # 64-151-5. (Startling x Irene Brown) X Chinese Coral. 36". Arched, ruffled standards are light peach; the lightly ruffled, semiflaring falls are clean waxy white a narrow peach colored rim and smooth peach at the edge of the hafts. The wide bushy beard is bright fire red. Four branches, unusual and different.\$25.00

RIPPLING SEA. # 64-74-3. Silver Wedding X Rippling Waters. 38". A very ruffled and frilly flower of lavender-blue with light yellow beard tipped blue-white. Three branches and 10-12 buds. Blooms early to late.\$25.00

BORDER BEARDED

OLIVE COCKTAIL. # 64-47-7. Jungle Shadows X Wayward Wind. 21". Smoky greenish tan with darker brown haft and brown beard. Flaring form and dainty size. EC '68?\$15.00

INTERMEDIATES

BLUE VISION. # M1059. (Starlift x Lady Ilse) X Pearl Shell. 22". Beautifully formed, ruffled light true blue with pale blue beard. Well branched and good substance.\$7.50

CHARM SONG. # M1057. (Enchanted Pearl x Beechleaf) X Pastel Petite. 10". Horizontally flared and ruffled, medium violet with deeper violet at the tip of the bronze beard.\$7.50

GYPSY SMOKE. # M1060-2. (Snow Flurry x Beechleaf) x Dark Chocolate) X Rosy Treasure. 22". A smoky blend of red, mauve and tan with bronze beard; ruffled, flaring form.\$7.50

LILAC LILT. # M1051-10. Melodrama X Green Lilt. 23". Ruffled standards are pale lilac and the horizontal flaring falls are darker lavender, lighter at the edges.\$7.50

ORANGE RIOT. # M983-6. Lillipinkput X La Parisienne. 21". Brightest apricot orange self with wide bushy marigold orange beard; flaring form and a riot of color.\$7.50

PINK REVERIE. # M1205-3. Pink Pride X Pink Pride. 22". A ruffled and flared coral pink with a slight orchid influence, Beard is bright saturn red.\$7.50

STANDARD DWARFS

BLACK BIT. # D704-1. Black Baby X Lilli-Var. 11". This is the deepest, sooty red-black with flaring falls slightly lighter at the edges; near self beard.\$5.00

DUSKY BLUEBEARD. # M1166-7. (Smoothy x April Morn sdlg.) X Arrangement. Ruffled standards are greenish beige; ruffled flaring falls are greenish brown with border the color of the standards. Beard is bright blue. A different and startling color.\$7.50

SKY BOLT. # M1250-5. Blueberry Muffins X Snow Elf. 12". Ruffled standards are light blue; wide, rounded, flaring and ruffled falls are light blue overlaid with green. Bright green at the hafts and lighter toward the edges. Beard is blue.\$7.50

SUNLIT TRAIL. # M-826-9. Sister of Spring Laughter. A beautifully formed, bright sunny yellow, slightly lighter at the edges of the falls, and a light blue beard. All petals are lightly laced and ruffled.\$7.50

MINIATURE DWARFS

BRIGHT IDEA. # D603-1. Veri-Gay X Lilli-Var. 8". A dainty iris of clear bright orange. Flaring falls have a fine edge of lighter yellow and light blue beards.\$5.00

DOLL HOUSE. # 712-6. Green Halo X collected orchid pumila H 37. 7". A lovely heliotrope-orchid with falls a little darker around the wisteria-blue beard. Excellent form.\$5.00

MINI-PLIC. # M699-4. (Praiseworthy x Snow Baby) X Cretica. 6". Closed standards are white, bordered with medium violet stitching; rounded, flaring falls are white with stitching just at the sides. Beard is near white. A rare pattern in miniature dwarfs.\$5.00

AVONBANK IRIS GARDENS

Dr. Lloyd Zurbrigg

903 Tyler Ave.

Radford, Va. 24141

1969 INTRODUCTIONS

- ALPEN MAJESTY Sdlg. 65-2-5. M & Re Tall, impressive beetroot purple bitone. Four branches and terminal. (See inside back cover of Bulletin 192). Very good form and substance and fertile. (Alpenrose X Double Majesty). \$25.
- DA CAPO Sdlg. 65-16-AAA. M & Re. Large, well-formed remontant that reblooms as early as the second week of August here, and continues until frost. Phenomenal growth and bloom, and amazingly fertile pollen. Also pod-fertile. White background banded violet-purple in falls, the standards nearly solid. (Replicata X Double Majesty) \$25.
- EDENGLO Sdlg. 64-10-8. M & Re. Rich maroon (10/30) with the sooty black overlay on the falls and the rounded petals of EDENITE, its pod parent. Dark bronzy-red beard. Reblooms in October here. Some white shows around the beard; the sides of the hafts are solid. Fertile. (Edenite X sib. to August Gold) \$15.
- EASTER GLORY Sdlg. 65-40-A. ML. This non-remontant combines brilliant golden yellow standards with orchid falls, the latter more intense at the borders and in the centre. The bright golden beard is surrounded by a bright yellow halo. Wonderful form, substance, color, stem, and long-lasting. Fertile. (Siam X Cook seedling) \$35.
- GRAND BAROQUE 65-23B-2. ML & Re. A sensational remontant directly out of HENRY SHAW. Reblooms in September. The highly ruffled flowers are large and of good substance. On opening the color registers as a blue and green bicolor, but by the third day the blue fades, leaving a chartreuse amoena. Simply wonderful growth and hardiness. This could be the Snow Flurry of the remontant world, but it is pollen parent and thoroughly hardy. (Henry Shaw X Replicata) \$25.
- HOUSE OF LORDS Sdlg. 65-41-Dykes. A superlative iris. White petals are evenly banded with raspberry-purple, in both standards and falls. A truly noble iris, the 39" stems are perfectly branched to give four out, and the flowers last four days in perfect condition. Fertile both ways. Non-remontant. HC 1968. (Paper Doll X Stepping Out) \$35.
- PETKIN Sdlg. 65-26A-8. A remontant border iris that is border in character throughout—leaves, stems and flowers. Standards white, overlaid amethyst; falls white banded amethyst with a dart of color at the tip of the beard. Blooms mid-May and September. Horizontally-flaring, with tightly-closed standards. Excellent growth, and truly unique. (Northern Spy X Double Majesty) \$20.
- SOUTHERN SPY Sdlg. 65-26B-12. E & Re. Closest to perfection of my remontants thus far. Standards orange-brown touched green at the midribs, and so full and swirled that the style-arms are completely hidden. The falls flare almost horizontally and flare upwards at the end, and are somewhat ruffled. The fall color is maroon-red with a central spot of pale orchid in which are some white markings, the effect being of a spot of white in the dark falls. The sides of the hafts are completely solid. Well-branched, 34". Blooms mid-May and early September. (Northern Spy X Double Majesty) \$35.
- SWISS MAJESTY Sdlg. 65-12-GP. EM & Re Giant, heavily-substanced plicata, of great width of petals, yet perfectly hardy. It is not as early nor as generous with rebloom as the others listed, although it might be if I did not breed so heavily with it in the spring season. The broad, rounded form suggests onco breeding. Three deeply set branches and terminal. Standards white, heavily overlaid with pansy purple (33/1). Falls white with a broad border of pansy purple. Excellent pod parent; bears fertile pollen. (Dotted Swiss x Gibson Girl) X Double Majesty \$25.
- WHOLE PACIFIC Sdlg. 60-93-A. This iris has very broad, smooth-textured blossoms of gentian blue, very evenly colored. Not a remontant, it is vigorous in growth and very generous with bloom, making a wonderful display. Its only fault is a low bud count (5-7), but in a clump this is never noticed. (South Pacific X Whole Cloth) \$15.

Catalogue upon request.

Special cash offer, good only until May 31, one each of the remontant introductions, value \$170 for \$100.

REACH
for the
STARS . . .

The 1969
Introductions
of
Joseph J.
Ghio

**BRIDAL
SHOWER** \$25

This is a distinctive pearly white with serrated edge, corrugated ruffling, and horizontal flare. ((Frosted Starlight x Demetria) X Nina's Delight).

**CROWNING
GLORY** \$25

The ultimate in blue amoena development. White standards with true blue falls. The entire bloom is swirling with ruffling. (Frosted Starlight x Whole Cloth) X (((New Snow x Lady Ilse) x Frosted Starlight) x Frosted Starlight) HC '67.

JUSTICE \$25

A stout, very true royal blue—a vibrant, miraculous color! Slight lace adds intrigue to a very unique iris. ((Celestia x Regina Maria) X Ellen Manor).

Free
Catalog
Available

SEANCE \$25

The pinnacle in ruffled irises (and a delightful blue-amethyst color to boot!). Impressive carriage. (Sterling Silver X Twilight Sonata).

SWAMI \$15

"Kooky!" A border bearded iris with a blend of colors (blue, yellow, violet, and tan), difficult to describe. Burnt gold standards and shoulders. (Wizard sib X (Pretty Quadroon x Frosted Starlight)).

**WHISPERING
GLADE** \$25

A refreshing antique green-gold. Serrated edge and plenty of ruffles; branching and bud-count are unsurpassed. (Moon River X (Pretty Quadroon x Frosted Starlight)).

BAY VIEW GARDENS

1201 Bay Street

Santa Cruz, California 95060

Lifetime Plastic Plant Markers

LIFETIME MARKERS are used by both amateur gardeners and commercial growers as an attractive, long-lasting method for identifying and pricing plants and shrubs. Permanent, will not rot, easy to read, remains clear and plain even if covered with soil over winter. The writing can be removed with scouring powder or fine steel wool and the label can be used again and again. Remains neat and clean. One of the things we like best is the saving in time required to prepare labels at planting time.

The Tie-on Tags are popular with those who wish to fashion their own steel stakes from heavy wire.

Sample Assortment: 10 each of A, C, D, F and 5 each of B and H for \$1.00.

THRIFTEE MARKERS are made of lighter gauge plastic. They are used by commercial growers, nurserymen and florists . . . wherever durable, attractive plant markers are required in quantity at a minimum price.

Sample Assortment: 125 Thriftee Markers for \$1.00.

THRIFTEE SNAP-ON TAGS eliminate the need for wires or strings. They are snapped into place with a slight twist and stay until removed the same way.

The 3 inch SNAP-ON TAGS are used extensively by hybridizers of irises and daylilies. We use the square SNAP-ON TAGS in our iris and daylily display garden. They are snapped on under the flowers for garden visitors to see name and price.

Lifetime Markers are now made in pure white only. We have a few thousand Spring Green Lifetime Markers in styles A, B, B-4, C, D and E available while supply lasts. Pure white will be sent if spring green is not specified or if no longer available.

TERRACLOR 75%

For SOFT ROT and CROWN ROT (Mustard Seed Fungus)

Just mix one tablespoonful of Terraclor 75% in one gallon of water and saturate the iris plants and soil with the solution. If only a few plants to treat, dust the plants, rhizomes and soil with Terraclor 75% and it works like magic.

A famous iris hybridizer used Terraclor solution as a spray for leaf spot and claimed she had excellent results. We now use Terraclor for leaf spot.

POSTPAID PRICE IN U.S.A.

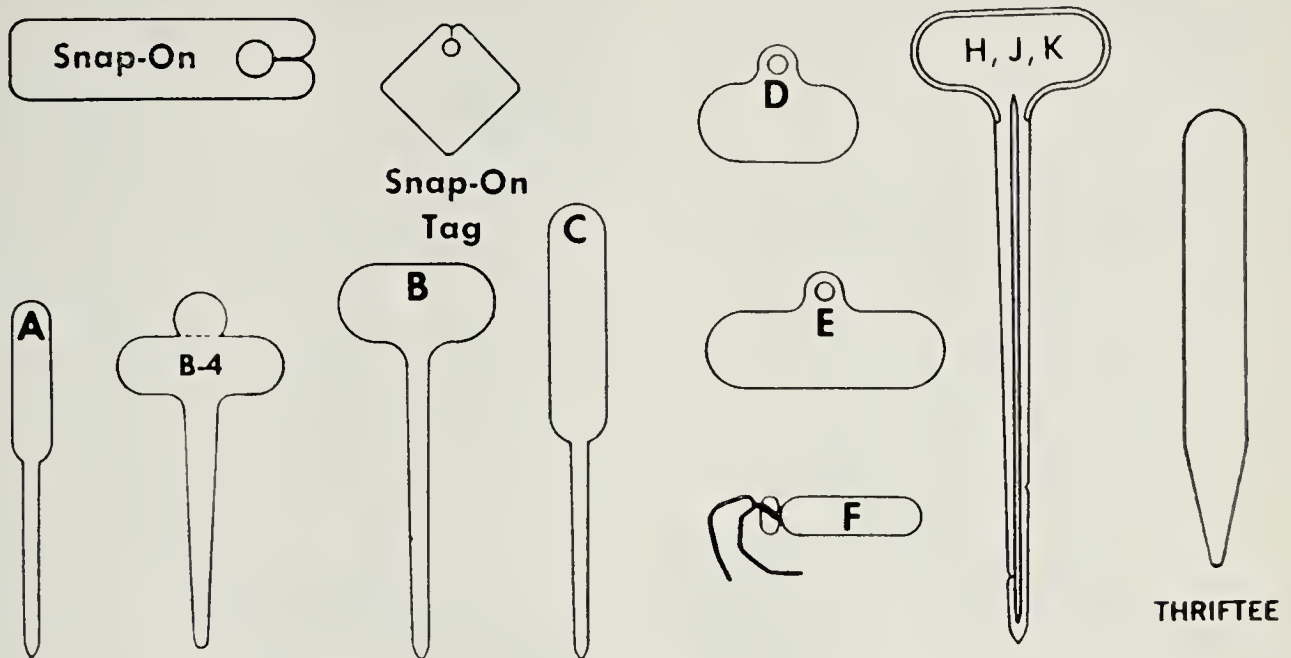
TERRACLOR 75% — 3 lbs. \$4.75

Prices subject to change without notice.

Gable Iris Gardens

2543 38th Ave. So., Minneapolis, Minn. 55406

Lifetime Plastic Plant Markers



POSTPAID PRICES IN U.S.A.

LIFETIME MARKERS	50	100	500	1000
A—4½" Vertical Stake	\$1.00	\$ 1.50	\$ 5.80	\$ 8.75
B-4—4" Tee Stake	1.00	1.60	6.40	9.60
B—2" x 5" Tee Stake	1.75	3.00	11.85	17.80
C—6" Vertical Stake	1.50	2.50	10.80	16.20
D—1" x 2" Tie-on Tag, with wires	1.40	2.20	9.90	14.85
E—1" x 3" Tie-on Tag, with wires	1.65	2.65	11.35	17.00
F—½" x 2" Notched Tag, with wires	1.00	1.50	5.75	8.00
H—2½" x 8" Tee Stake	3.50	5.50	22.00	33.00
J—3" x 12" Tee Stake	5.50	9.90	39.50	59.25
K—4½" x 18" Tee Stake	8.75	16.50	70.00	102.00
P—1" x 12" Vertical Stake	4.40	7.40	27.50	38.00

THRIFTEE MARKERS	100	200	500	1000
4" x ⅝" Pure White or Spring Green	\$1.00	\$ 1.50	\$ 2.75	\$ 4.60
5" x ⅝" Pure White or Spring Green	1.20	2.00	4.00	5.75
6" x ⅝" Pure White or Spring Green	1.35	2.25	4.50	6.45
8" x ⅝" Pure White or Spring Green	1.70	2.75	6.00	8.25

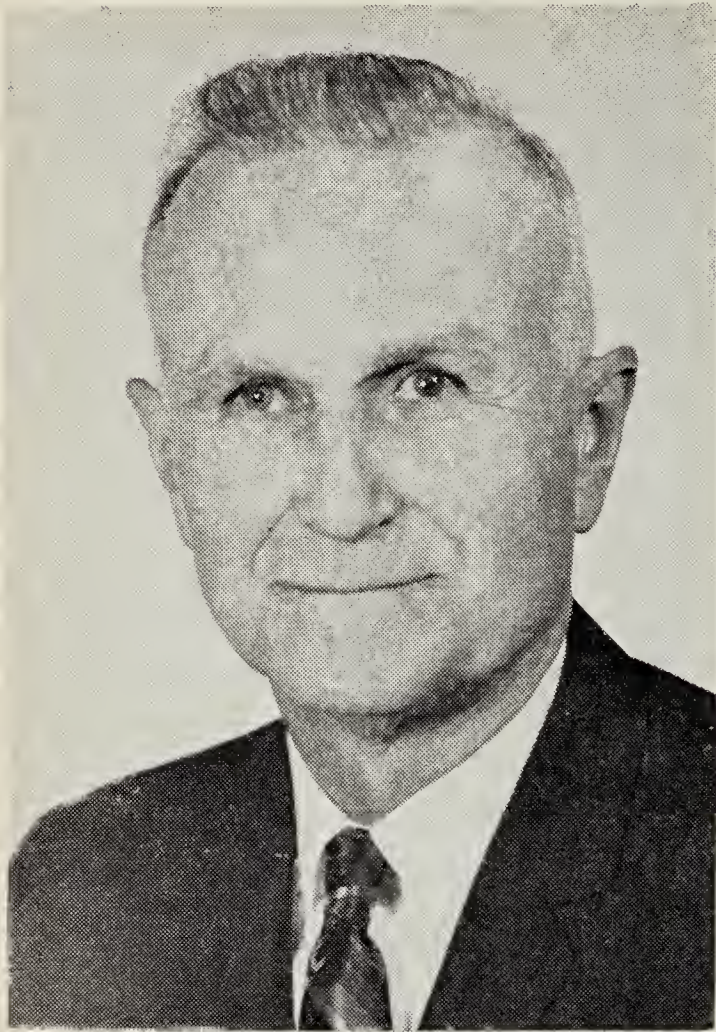
SNAP-ON TAGS	100	200	500	1000
3" x ¾" Pure White or Spring Green	\$1.00	\$ 1.50	\$ 3.00	\$ 5.00
2" x 2" Pure White or Spring Green	1.65	2.75	5.20	7.75

WEATHERPROOF PENCILS, 2 for 35c, 12 for \$1.50.

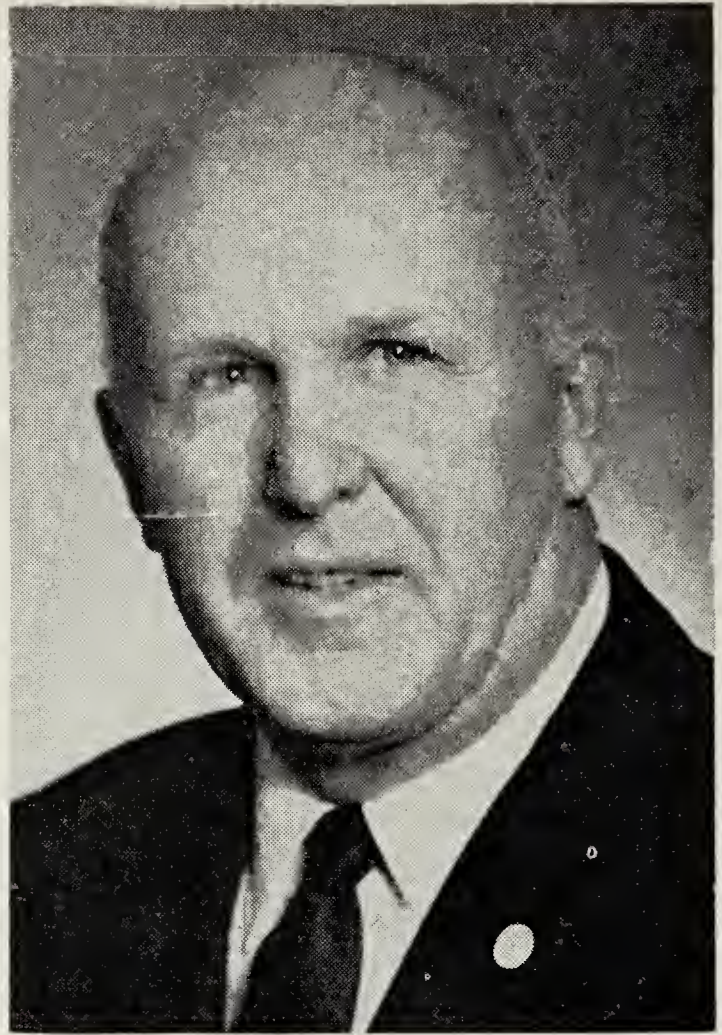
Gable Iris Gardens

2543 38th Ave. So., Minneapolis, Minn. 55406

PRESIDING OVER MILWAUKEE MEETING



W. T. Bledsoe, *President*
American Iris Society



Clarence Protzmann, *RVP Region 8*
Convention Manager

AIS Convention, June 4, 5, 6, 7, 1969

Milwaukee, Wisconsin

Clarence Protzmann

On the east lies the shores of one of the five Great Lakes, Michigan; on the north Lake Superior; on the west the Father of Waters, the Mississippi; and within its borders are numerous large rivers and thousands of lakes. These abundances of fresh waters are contributors to the great forests and colorful landscapes that prevail throughout the beautiful State of Wisconsin during the spring, summer, fall and winter months of the year. It is one of the States that enjoys four seasons.

To lovers of horticulture, and particularly irises, we extend an invitation to see and enjoy the beauty of Wisconsin in June. Here you will see irises that after being blanketed with snow and will have had a good winter's rest reach full glory of bloom in the early days of this month.

The Wisconsin Iris Society and the Milwaukee Park Commission look forward to your visit with us, to participate in the very active National Convention of the American Iris Society that will await you in Milwaukee, Wednesday through Saturday in the early days of this month.

Headquarters of the Convention are at the spacious Hotel Sheraton-Schroeder, in the heart of Milwaukee, and overlooking the Civic Center where extensive changes have been made and the new Center for the Performing Arts nearing completion.

There will be "Old Milwaukee Night" when you will experience the hospitality that has earned the city the reputation of one that fosters "Gemuetlichkeit."

A central planting that includes all varieties of irises submitted for the Convention will be presented to you, ideally located in the Alfred L. Boerner Botanical Gardens of the C. B. Whitnall Park. Here 21 beds contain irises sent from 34 states and Australia. In this planting has been assembled the "royalty" of the Iris World of the years 1966, 1967 and 1968, as selected by AIS Judges. In Bed 10, there are 36 AM winners for those three years, and the Dykes Medal winners from 1961 through 1968. In Beds 11 and 12 are 154 HM winners for these same years, and Bed 13 contains an additional 25 HMs, and a David Hall Memorial planting of 27 varieties high on the list of Mr. Hall's developments, including the last introduction, AFTER ALL. We are honored to be able to present this planting in memory of Dave Hall, who was an esteemed hybridizer from our neighboring State of Illinois. Presentation of this planting was made possible by R. M. Cooley of Silverton, Oregon.

As in all areas where conventions are held, we are at the mercy of the elements, and we beseech them to be kind to us.

An Educational and Art Exhibit is a new feature added to this convention. May this be the beginning of an effort to stimulate a more extensive interest in the use of the iris as the motif in the many art forms in existence today.

A study of irises, their pests and diseases, has been in progress at the University of Wisconsin, with irises contributed by AIS members for the past three years. A report of findings, observations and applications will be made at Convention time.

A Horticultural and Artistic Arrangements Show will be presented in the Domes and Mitchell Park Pavilion on Saturday.

Experimentation with a Controlled Culture Program has been in progress, and we will endeavor to have a showing of blooming potted plants in the Exhibition Dome of the Horticultural Conservatory. These new and exciting geodetic domes are receiving world recognition for the horticultural shows presented here.

Judges Training sessions on aril, Japanese, median, Siberian, spuria and tall bearded irises will be presented. The best instructors obtainable will cover their particular assignment.

Sectional meetings of the various Societies are to be held. Be sure to come early to enjoy full participation.

ROBINS—a meeting room is being provided for "Robin" members, and plans are being developed by national representatives and the Convention Committee. **BE SURE TO INCLUDE YOUR ROBIN NAME AND NUMBER** when sending in your convention registration, so we can have things in order on your arrival. Bring along your ideas and enthusiasm for a "Grand Old Time" with your Pen Pals.

(Continued on page 50)

American Iris Society Convention Program

JUNE 3rd, 4th, 5th, 6th and 7th, 1969

Hosted by the Wisconsin Iris Society, of Region 8, and the Milwaukee County Park Commission.

TUESDAY, JUNE 3rd, 1969

3:00 P.M.—REGISTRATION

5:00 P.M.—Executive Board Meeting

7:00 P.M.—Regional Vice President's Meeting

7:00 P.M.—Sectional Representatives and AIS Liaison Chairman Meeting

7:30 P.M.—Informal Gathering, and Program—

“Our State—Wisconsin”

WEDNESDAY, JUNE 4th, 1969

8:00 A.M.—REGISTRATION

8:00 A.M.—BREAKFAST

Executive Board—R.V.P.s—and Sectional Representatives

8:00 A.M.—ROBINS' ASSEMBLY ROOM

Interest in the development of Robin activity is desired. All Robins report to your nesting place on arrival. Local hostess present to act as liaison to coordinate activities that may be desired.

9:00 A.M.—Meeting, REBLOOMING IRIS SOCIETY

10:00 A.M.—Meeting, SOCIETY FOR JAPANESE IRISES

11:00 A.M.—Meeting, THE SOCIETY FOR SIBERIAN IRISES

1:00 P.M.—Meeting, SPURIA IRIS SOCIETY

2:00 P.M.—Meeting, ARIL SOCIETY INTERNATIONAL

3:30 P.M.—Meeting, MEDIAN IRIS SOCIETY

1:00 P.M. to 5:00 P.M.—Scheduled Bus Tours

MUSEUM, BREWERIES, etc.

6:00 P.M.—“OLD MILWAUKEE NITE”

Milwaukee Auditorium—Kilbourn—Juneau—Walker Halls
N. 5th St. and W. Kilbourn Ave.

Dinner—Refreshments—Amusement

7:30 P.M.—Words of Welcome—

Message from President—William T. Bledsoe

8:30 P.M.—Milwaukee “Gemuetlichkeit”

THURSDAY, JUNE 5th, 1969

7:30 A.M.—Bus Departures—from Sheraton-Schroeder Hotel

Guest Garden—Mr. & Mrs. Royal Johnson

Windlake, Wisconsin

Alfred L. Boerner Botanical Gardens, Whitnall Park

Central Planting of Convention Irises

Education and Art Show

11:15 A.M.—Buses leave promptly for Luncheon

Red Carpet Inn

1:15 P.M.—Alfred L. Boerner Botanical Gardens

Judges Training Series

Introduction—Dr. Hugo Wall, Wichita, Kansas

1:30 P.M.—Median Irises—Mrs. Carol Ramsey, Wichita, Kansas

- 2:45 P.M.—Tall Bearded—to be announced later
 4:00 P.M.—Buses Depart for Sheraton-Schroeder Hotel
 6:00 P.M.—Judges Training Series
 Spuria Irises—Mrs. Joseph P. Crawford, Purcell, Okla.
 Dr. Clarke Cosgrove, San Gabriel, Calif.
 7:00 P.M.—Siberian Irises—Dr. William McGarvey, Oswego, New York
 8:00 P.M.—“Our Experiences with Iris Diseases”
 University of Wisconsin, Madison
 Dr. Gale Worf—Dept. of Plant Pathology
 9:15 P.M.—“Iris Insect Control—Past, Present, and Future”
 University of Wisconsin—Madison
 Dr. Charles F. Koval—Dept. of Entomology

FRIDAY, JUNE 6th, 1969

- 7:30 A.M.—Buses leave Sheraton-Schroeder Hotel for Guest Gardens of:
 Mr. and Mrs. Arthur G. Blodgett
 Waukesha, Wisconsin
 Mr. and Mrs. Edward G. Miller
 Milwaukee, Wisconsin
 Mr. and Mrs. Clarence H. Protzmann
 Milwaukee, Wisconsin
 Mr. and Mrs. Robert M. Reinhardt
 New Berlin, Wisconsin
 Mr. and Mrs. John Troka
 St. Francis, Wisconsin
 11:30 A.M.—Buses Depart for Luncheon at Bavarian Inn
 1:30 P.M.—Buses Depart for Guest Gardens
 4:00 P.M.—Buses Depart for Sheraton-Schroeder Hotel
 6:30 P.M.—Judges Training Series
 Japanese Irises—Bob (C.A.) Swearingen—alternates:
 Pat (Mrs. Maiben) Reynolds—William Ouweneel
 7:30 P.M.—J B Singers—J. F. Kennedy High School
 Bloomington, Minnesota
 1st Place Winners—Minnesota State Fair and National
 Competition
 8:15 P.M.—John E. Voight, Director, Alfred L. Boerner Botanical Gar-
 dens and Whitnall Park
 9:00 P.M.—Judges Training Series
 Aril and Arilbred—Mrs. Virginia Ross, Roseville, Calif.

SATURDAY, JUNE 7th, 1969

- 8:00 A.M.—Guests of Milwaukee County Park Commission—Tour.
 Includes revisit to Alfred L. Boerner Botanical Gardens
 12:30 P.M.—Luncheon at Milwaukee Count Zoo
 2:00 P.M.—Horticulture Conservatory (Geodetic Dome), Mitchell Park
 Horticultural Show—Mitchell Park Pavilion
 Artistic Arrangement Show—Foyer, Horticultural Conser.
 Controlled Culture Exhibit—Exhibition Dome, Hort. Con.
 4:00 P.M. to 5:30 P.M.—Shuttle Bus to Sheraton-Schroeder Hotel
 8:00 P.M.—Banquet—Sheraton-Schroeder Hotel
 Speaker—Dr. Clarke Cosgrove
 San Gabriel, Calif.

You will be the guests of the Milwaukee County Park Commission on a tour arranged by them on Saturday morning.

For sending in your hotel registration, see January 1969 *Bulletin*. You need pay no more than \$9.50 for a single or \$13.50 for a twin bed room. This also includes parking. You need send no money with your reservation, but we suggest that you make every effort to send your reservation by May 20. However, if this cannot be done by this date, rooms must be provided at the above rates. We have been solicitous of your interests during your stay with us.

On Saturday evening—THE BANQUET.

For the early arrivals, and all who will not be participating in the scheduled meetings of Tuesday, June 3, an informal gathering has been planned. Come early and become acquainted with Wisconsin and your hosts.

Plan to extend your stay to become further acquainted with the natural beauty of Wisconsin. May you long remember your visit here, the Convention activities, and the "Gemueticlichkeit in Iris Time in '69."

Wisconsin beckons—Milwaukee invites—so come, for we await you.

BOERNER BOTANICAL GARDENS 1969

The perfected plantings of "guest irises" have been completed and the scene now is set for the AIS Convention in June.

The magnificent setting of iris plantings as an important feature of the trial garden will serve as a welcome mat to the Boerner Botanical Gardens. Here are the statistics: The preparation of twenty-one beds, each six feet wide and sixty-five feet long, was accomplished in the fall of 1966. Six-foot grass walks also were established at this time, providing a very functional traffic pattern. Each bed is tiled to assure proper drainage. The ideal exposure provides uniform growing conditions for all plants and will afford the viewer the opportunity to see, to compare, to evaluate, and to enjoy the accomplishments of iris hybridizers.

A thorough and uniform application of horse manure and torpedo sand was applied to each bed and blended to the existing clay-loam in the spring of 1967. The first planting took place on July 11, 1967, and the last planting on October 17, 1968, with a total of 1600 varieties. We anticipate a magnificent show.

The plants are amply spaced, averaging 24" apart in the rows, and each row is 18" from the ends of the beds. Beds contain thirty-two varieties each, a total of 96 plants per bed.

The plantings include tall bearded, border and intermediate bearded, miniature tall bearded, standard dwarf, arilbred, Siberian, Japanese and spuria.

A bed has been set apart as a memorial to the late Mr. David Hall, including a planting of some of his best creations. This should prove to be of considerable interest.

Our objectives for 1969 have been set. See you on June 4 through 7, 1969.

And a visit to Milwaukee during iris convention time will also be the opportunity to see the amazing horticultural domes, four in number.

On To Wisconsin—We Will Meet You There

Clarence Protzmann

Some additional words on the Judges Training Program to be held during the convention at Milwaukee June 4 through 7 this year. A crystalized concept of what the knowledge and capabilities of an iris judge should be has been advanced by AIS, and guidelines submitted for training of present and potential. The Regional Organization has long recognized the need of a standardized judging program and readily responded in the adoption and application of the more intensive training program. The accedence of individuals to complete the required training course will have a two-fold advantage, better qualified judges and a reflection in award-winning irises of the future.

To aid the Regions in their training program and because of the general interest in more competent judging, the various Sections of AIS are being given the opportunity to have the most capable individuals available to them, present a most learned and truly enlightening lecture on their particular kind of iris. Six such gems of iris knowledge will be presented and credit will be given to all individuals attending. This can be recognized by the various Regions toward the required hours of training to qualify for judge appointment consideration.

GET YOURSELF PLENTY OF REST—BUILD UP YOUR VITALITY, for in moments other than “When Gemuetlickett will prevail” a busy convention is planned for you.

CONVENTION REGISTRATIONS

Until May 1\$42.50
After May 1\$47.50

Send to MR. ARTHUR BLODGETT, 1008 Broadway, Waukesha, Wisconsin 53186.

HOTEL RESERVATIONS to Single room\$9.50
SHERATON-SCHROEDER Hotel Twin bed room\$13.50
509 West Wisconsin Ave.
Milwaukee, Wisconsin

YOU NEED PAY NO MORE

Guest Irises CONVENTION '71 WICHITA

The Wichita Area Iris Club of Region 18, an affiliate of AIS, will host the 1971 Convention. Each of our home tour gardens will display plantings of guest irises, as will the two major gardens. Many of the beds are already prepared, the remainder under construction. All guests will be grown in soil new to irises so we believe all will have equal opportunity to perform their very best. Plans are made for irises other than the tall bearded to be segregated in beds according to type.

Since most types of irises seem to thrive in the Wichita area every hybridizer is invited and encouraged to participate. The Guest Iris Committee asks that each of you be guided by the following:

a. Beardless irises should be sent in spring or fall 1969—not in summer.

ALL OTHERS will be received from July 1, 1969 through September 15, 1969. Shipments will be permitted in 1970 (preferably double rhi-

zomes). All packages are to be sent prepaid. Consult your local agricultural agent for necessary shipping permits.

b. All correspondence and all guest rhizomes are to be mailed to:

W. F. Brown, Chairman
Guest Iris Committee
469 Elpyco
Wichita, Kansas 67218

c. This data must accompany each rhizome:

Hybridizer's name and full address
Name or seedling number of the variety
Type of iris
Height, color, bloom season
Year of introduction

Please send recent introductions and those seedlings that are being seriously considered for introduction.

When seedlings under number are named, it is the responsibility of the contributor or hybridizer to notify the Guest Iris Chairman, in writing, prior to November 1, 1970. We ask your cooperation so that our labels and guest listings will be up-to-date.

d. We can accommodate up to three rhizomes of the same variety.

e. Each contributor or hybridizer will be mailed a "Receipt Record" listing all guests received and the garden to which each has been assigned—promptly. Immediately after the convention each contributor will be asked for instructions for final disposition of his iris stock. **FAILURE TO REPLY BY JULY 15, 1971 WILL BE INTERPRETED AS AN ORDER TO DESTROY THE STOCK IN QUESTION.** The committee will honor all requests from the contributor for return of plants and they will be mailed postpaid. Except, foreign guests cannot be returned to a foreign address. However, the foreign contributor or hybridizer may designate an address within this country to which the guests will be shipped.

f. The Convention Committee has adopted the following Code of Ethics:

1. All guest rhizomes and their increase shall remain the property of the contributor or hybridizer. In July, after the Convention, all will be returned or disposed of according to the wishes of the contributor or hybridizer. None will be distributed, traded or sold.
2. Using pollen or setting seed on a guest iris will not be permitted.
3. Owners of Tour Gardens growing guest irises shall not be held responsible for losses beyond their control; such as bad weather, pests or vandalism.
4. All guest irises will be planted no less than two feet apart in well tended beds by experienced gardeners who are members of the American Iris Society.
5. The Guest Iris Committee can accept no responsibility for any rhizome sent directly to any garden.

W. F. Brown, Chairman
Guest Iris Committee

JUBILEE IN NYC
GOLDEN ANNIVERSARY CONVENTION
NEW YORK --- 1970

Dates: Wednesday June 3-Saturday June 6

Headquarters: Statler Hilton Hotel, 7th Avenue at 33rd St.

Near shopping and theatre districts

Gardens:

New Jersey—Presby Memorial Gardens, Montclair
Fred Knocke, Readington

Staten Island—Mrs. Kenneth Smith

Long Island—Harry Kuesel, Greenvale
William Peck, Oyster Bay
Planting Fields, Oyster Bay
Martin Viette Nurseries, East Norwich

Westchester County—Paul and Louise Watts, Armonk

Connecticut—Edwin Stretcher, Stamford
William Thomson, Stamford

FERRIS D. GASKILL MARGARET G. GASKILL

Come to the 1969 Milwaukee Convention. See the comprehensive display of fine irises in the Convention gardens. Plan also to visit the fine gardens of other Wisconsin hybridizers and those of Illinois hybridizers. They have been especially planted and grown for your enjoyment.

GREENBRIER irises may be seen in all these gardens, including our own and the GOODRICK garden in Brookfield, Wisconsin.

NO INTRODUCTIONS FOR 1969

1968 INTRODUCTION

ROMAN VILLA (Available only from Moldovan's Gardens.)\$30.00

WE OFFER

JANET MARIE '68	\$25.00	THREE GRACES '68	\$25.00
CANARY CADENCE '67	\$17.50	INTEGRITY '67	\$15.00
ROBIN REDBREAST '67	\$17.50	CHARMING CO-ED '66	\$17.50
MIDWEST MAGIC '65	\$10.00	MIDWEST MORNING '65	\$10.00

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GREENBRIER FARM

(Est. 1939)

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THE GRAND BALL

By William Simon

When your kids are going to a prom or a fancy party you want them to look like Cinderella and the gallant prince—before midnight, of course. With not a hair out of place, all frilled and groomed, ready to lead the Grand March, and so it should be.

I like to think of flower shows as a fancy ball with every specimen of bloom either a lovely princess or a dashing young prince, and it too should be.

However, many a would-be princess looks like Cinderella **after midnight** by the time she is placed in the show and the would-be young prince looks as though he had to change a tire on the pumpkin during a rainstorm by the time he reaches the show table. Broken and bruised petals, pollen smears, lack of grooming are all too prevalent in our shows. If some of these specimens had their way they would crawl into some remote and darkened corner rather than be exposed with tresses in disarray, mud on their feet, and a hole in their pants. But many a would-be blue ribbon winner ends up this way, unfortunately. This doesn't have to be.

It seems a shame that some gardeners work so hard to bring their bloom to a peak for the day of the show, then literally throw it all away by cramming them in a bucket and go rattling off to the show in a frenzy, oblivious to bumps or chuckholes. By the time they arrive the bloom looks as though someone had performed the Mexican Hat Dance in the bucket!

Then there is the Russian roulette method. Place several specimen in pop bottles, and set them on the floor in the front of your car. Lacking a box, have your wife sit with the bottles squeezed between her feet in pigeon-toed fashion, with her knees apart. She then holds the bloom in such a fashion that they can't bang together. Then as you travel the fourteen miles to the show you must constantly warn her to hold them carefully. After all, you did work hard to raise them. By the time you reach the show she is so nervous and worked up she is no longer on speaking terms with you. Now the state of her mind might not be important, but what is important is what has happened to the stalks where her hot little hands held them so tightly—stewed asparagus?

There are numerous other unique methods in the same category as those just covered; they're not winners either; I've tried them. Several years ago I tried something different and have been completely successful with it. No water is used enroute to the show; no expense is involved, and I must honestly say I haven't bruised a petal since using this method. All you need are several pasteboard boxes (the type average sized canned goods come in), some newspapers, facial tissue (like Kleenex) and a sharp knife. The only other ingredient required is a heap of patience.

In selecting bloom I cut only those irises I believe are good enough in quality to win a blue ribbon, may it be one or ten. As each bloomstalk is cut it is placed in a waterfilled container out of the wind. On completing this, the next step is to make out entry tags. If you are a good club member, you more than likely helped to set up the show the night before and can bring your entry tags home with you. It's a heck of a lot easier to do at home than at the show, where all is confusion.

Then comes the task of packing your bloom in your car for delivery to the show. The first step after removing the flaps of the box is to make two "Vee" cuts at each end and top edge. Make the cuts one and a half inches deep and one and a half inches wide at the top, place several folds of facial tissue into each "Vee" (raw corrugated cardboard can be sharp; you don't want to scar the stalks). Then place the box in the trunk of the car.

Usually you can pack four specimens in a box, two stalks extending out each end of the box. Since varieties do vary in size, it should be easy to accomplish if you alternate first a large stalk then a smaller one. As you place each stalk into the box, extend the cut end down to the bottom and far end of the box, cradling the center of the stalk into one of the "Vee" cuts. Usually I tape the stalk ends to the bottom of the box. After the box is full, stuff single sheets of crumpled newspaper in and around the stems to support them and help prevent them from moving about. You then repeat the performance with a second box until you are out of trunk space and/or flowers. It is a good idea to secure the boxes in any way you see fit to prevent them from sliding in the trunk as you drive to the show.

There have been times when I have prepared a box as I have just described and carried it on the back seat of the car. In this case I always place a couple of bricks in the bottom of the box for ballast, the idea being to keep the box and its contents from flying into the front seat with you should you have to stop suddenly. While leis are very lovely on occasion, you certainly wouldn't want one wrapped around your neck via this method.

You may have been wondering up to now how the iris bloom holds up without water from the time you pack them in the boxes until they reach the show table. I have never noted any deterioration of the bloom because of it. In my case the flowers are out of water for about an hour and a half. When I reach the show, I cut off an inch or two of the stem so that it can easily take up water again. Of course, if you're squeamish about having your bloom out of water for any length of time, you can get little plastic capsule bottles from the drug store. These bottles hold enough water even in a tilted position to cover the tip end of the stalk with water while they are being transported to the show.

Now in heading for the show, even though you went to all this fuss, you still drive as though you were a little old lady of a hundred and five with a police car on your tail. Needless to say, you are not the most popular driver on the road; even the most timid driver looks down his nose at you as he whizzes by doing twenty-five miles an hour. When approaching railroad tracks holding your breath seems helpful. Maybe it's because you're inflated and in this way it seems you sit lighter on the cushion and don't hit bottom so often or as hard. I'm sure it doesn't do anything for the flowers, but it seems to help you mentally. After making what would appear a safe crossing, don't forget to exhale; there is no point in turning blue. When you've reached your destination and found it has been a successful if harassing journey, cast your eyes skyward and say something appropriate. Even if you aren't particularly devout, it can't do any harm. Don't forget you may want to try this again next year, so there's no point in taking any chances, 'cause brother, you can use all the help you can get.

Now you may say why all the fuss, why all the bother; is it worth it?

I don't really know, but I know this: I always wanted my son and daughter to look like a prince and princess when they went to a party, and as I said earlier I feel that a flower show is like a Grand Ball, with each specimen a prince or princess. I don't know whether you know this or not, but princes become kings and princesses become queens—with flowers even as children do.

SCHMELZER'S GARDEN

731 Edgewood

Walla Walla, Washington 99362

BLACK BART. Sdlg. 29-7-28. 37". E-M-L. Dark Fury X Ecstatic Night. Very near coal-black. Tall, well-branched, with a long blooming season. Self beard. In bright sunlight a glint of red may appear.....\$25.00

LAKE KALAMALKA. Sdlg. 38-7-W15. 34". M. Favorite Topic X Auda. Huge medium blue, edged in a wide band of silver. Due to rosy red pigment this iris has a rosy glow like a neon light behind it. (This is not a blend.) Branching well-spaced so as to display the beautiful flowers perfectly.....\$25.00

LIGHTNING FLASH. Sdlg. 6-7-N37. 36". M-L. Lightup X Chinese Coral. Bright orange self. Deeper orange style arms. White area around reddest beard imaginable. There is a brightness in this flower I have not seen in any other....\$25.00

OUT WEST. Sdlg. 35-7-W14. 35". M-L. Wide Country X French Lace. Huge soft yellow; beautiful form in heavy substance. The tall, perfectly branched stalks hold the flowers so as to display their beauty to perfection. Thick melon-pink beard. HC '68.\$30.00

Introducing for 1969 RASPBERRY RIPPLES

Seedling 4-66. (Pink Fullfillment x Orchid Jewel) X Rippling Waters. RVID, Midseason bloomer, 36 inches. HC 1968. Fertile both ways.

When I first saw this seedling, it was a two year clump with five bloom stalks and each stalk had three or four blooms open. My first reaction was, "I'm going to introduce it!" It should make a good exhibition variety with its candelabra branching. The color is a deep mulberry rose set off with a red beard. I feel it will be a good addition to this color class. It is a good increaser, resistant to leaf spot, has a deep green foliage and makes a beautiful, well-proportioned plant. It is semiflared with some lace and good substance. It is proving to be a good parent. In faulting it, the hafts could be a little cleaner, but this isn't noticable six feet away and because of the shortage in this class is a negligible fault.

See it at the Milwaukee AIS Convention in the Blodgett, Miller, Reinhardt, Troka and Botanical Gardens.\$25.00

PREVIOUS INTRODUCTIONS

TYCOON'S GOLD (Niswonger '68). Idaho Gold X Pretty Carol, Late. TB. HC 1967, Exhibition Certificate '67, Sdlg. 33-63, 61 HC votes. It's a bright clean yellow with a white blaze in the falls (Y1Lcm), slightly ruffled, good parent, fertile both ways, even though a good increaser, I'm short on stock.\$25.00

SAPPHIRE FUZZ (Niswonger '67). Lady Bluebeard X Marriott. Midseason. TB. 32". Light blue with a dark beard (BIL), Good Breeder for Blue Beards. HC '67, HM '68.\$10.00

NO CATALOG

GIVE DESIRED SHIPPING DATE

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Cape Girardeau, Missouri 63701

1969 IRIS INTRODUCTIONS

DAWN'S PROMISE. Sdlg. 66-22. M. 34". Apricot-orange self. Large bloom; strong, well-branched stalk. Domed standards. Flaring falls. Texture and bud count are very good. Apricot Lustre X Dawn Crest. HC '68.....Net \$25.00

EMMA LOUISA. Sdlg. 65-1. TB. 30". E-M. Domed standards are light lavender-blue; falls dark red-plum, semiflaring and ruffled. Strong stalk, well-branched. Bud count 8. Will rebloom. Gypsy Lullaby X Memphis Lass. HC '66.....Net \$25.00

GOLDEN DRESS. Sdlg. 66-13. TB. 34". M. Golden yellow self. Large lacy bloom on strong well-branched stalk. Substance, branching and bud count are excellent. HC '68.Net \$25.00

ALL THREE 1968 INTRODUCTIONS.....\$60.00

OTHER INTRODUCTIONS

CELESTIAL DAWN '68. 36". M. Celestial Glory X Dawn Crest. Apricot-bronze self. Large bloom on strong, well-branched stalk. Domed standards; flaring, ruffled falls.\$20.00

MISTER RHETT '68. TB. 34". M. Golden yellow self. Standards have a pebbled finish. Texture and branching are good. Domed standards; flaring, ruffled falls. 20 votes for HC '67.\$20.00

OLYMPIC KATE '68. BB. M. 20-24". Standards are golden yellow; falls have a cream center with deeper yellow edge. Domed standards. Substance and bud count are excellent.\$12.50

LIST FREE

NO COLOR

BUCKLES IRIS GARDENS

525 Kathleen Avenue

Sikeston, Missouri 63801

LES PETERSON CO-INTRODUCES FOR 1969

SATAN, JR. Main Event X Utah Velvet. M-L. BB, 20-22". Velvety smooth self of medium cardinal-crimson red. EC, HC and Best Sdlg. Salt Lake show 1968Net \$25.00

QUACHETA. (Imam Ahmid x Bali Aga) X Kalifa Kabul. E-M. Arilbred, 28". Mottled red-brown blend with faint signal, dull yellow beard. Once type — large overlapping standards. Average bud count, four. EC, HC 1968Net \$15.00

Previous Introductions Tell's Iris Gardens

GALA MADRID '68. Main Event X Gypsy Lullaby. M-L. TB, 30". Richly colored bitone. Standards butterscotch-gold, falls wine-red bordered brownish red. Blue flash below deep yellow beard. HC '66 and '67. Came within one vote of tie for Franklin Cook Cup Berkeley Convention '68.\$30.00

ARDI LOY '68. (Mary Randall x Involved line of seedlings) X Orange Parade. M-L. BB, 20-22". Peony purple self described as rose-red with brown-red beard. HC '67.\$20.00

FLAMINGO DAWN '67. Hidden Promise X Gypsy Lullaby. M-L. TB. 32". Peach-pink standards, lavender-blue falls with burnt orange beard. Medium size flower. HC '66, HM '68\$20.00

Les Peterson — IRIS

Award winning
Irises to Satisfy

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Salt Lake City, Utah 84106

AN ALTERNATE

Raymond G. Smith

The membership of The American Iris Society must certainly be aware that the annual subscription rate must go up. Under conditions of creeping inflation this is one of the hard economic facts of life. The question is not whether, but *when*. We are presently enjoying one of the best bargains possible at \$5 annual rate. This represents no increase in a dozen years, while almost all other organizations have more than doubled their rates in the same period.

Whenever there is an increase in rates for any organization, there usually is a temporary decrease in membership which almost if not completely wipes out the net gain from the increase. Thus we end up by paying more money and actually getting less for it.

Is there a possible solution? I suggest that there is at least a temporary solution which will maintain rates at the same level and not cost members a single penny. In fact, it will make possible an increase in services. The solution is this:

Each member should carefully consider the list of all persons, friends and relatives, to whom he gives presents of any kind—birthday gifts, anniversary or Christmas presents and the like. From this list select one or more persons who would enjoy receiving *The Bulletin of the American Society*, and send them a subscription in lieu of the customary present.

It is realized that there are members on limited or retirement income for whom this would not be possible. There may be others who can think of no one who might enjoy *The Bulletin*. And certainly, even if some of these persons received it for a year, they might not be sufficiently interested to renew. But some of us will have a sufficient number of “flower minded” friends so that we could do this for several years. And some of these people will become interested and “stick.”

So it seems to me that we can't possibly lose anything. We would spend the same amount of money and possibly more anyway, and those of us who have been deploring the excessive commercialization of Christmas and some of the other holidays might find this a real alternative. And certainly it will solve the problem of some hard-to-think-of-presents.

I have done this several times over the past few years and find that *The Bulletin* makes a nice present and one that is appreciated. If a number of persons did the same, I am sure that the Executive-Secretary could have some nice gift certificates printed to send to the recipients with the name of the donor listed. It all boils down to the simple fact *that if we act we stand to gain at no expense to ourselves, but if we do not it will cost us.*

I am today sending \$5 with a name, address and zone number to Cliff Benson, 2315 Tower Grove Blvd., St. Louis, Missouri 63110. If everyone does the same, our membership will double in the next twelve months.

IRIS COVERS IN COLOR

Duplicates of covers of January and April 1968 *Bulletin* covers. Ideal for covers for show schedules, yearbooks, iris programs, place mats for special iris occasionsten cents each

American Iris Society · 2315 Tower Grove Ave. · St. Louis, Mo. 63110

NEVA SEXTON'S IRIS GARDEN

1709 Third Street

Wasco, Calif. 93280

WESTSIDE STORY (Sexton '69)

(Mixed Emotions X Carved Jade) E. 36". Wide petaled and ruffled deep greenish yellow with blue tipped beard. Closed standards and semiflaring falls. Four-way branched stalks with three buds per socket. This one has heavy substance like Mixed Emotions.\$25.00

SPRINGTIME FANTASY (Sexton '69)

(New Frontier X Rippling Waters) M. 36". A sparkling, deep rose self of large size and wonderful form. The heavily subtanced petals are extra broad and beautifully ruffled. Closed standards and flaring falls. Four-way branching with three buds per socket. ..\$25.00

TRAVEL ON (Sexton '69)

(Nomohr x Party Dress) X (Phoebus Apollo x Rainbow Gold) M. 36". Rich golden yellow self with large flowers of heavy substance. One of the most heavily laced flowers we have ever seen, yet the buds have no difficulty in opening. Closed standards, and semiflaring falls. Well-branched stalk with many blooms. This is my yellow seedling 43-1961—that won 8th place award at Florence 1968.\$20.00

NEW MOON (Sexton '68)

(Moon River X New Frontier) M. 36". sdlg. 132-62. A large, very smoothly finished flower of rich lemon yellow with self-colored beard. Beautiful form with extra broad, heavy substance petals, closed standards and flaring falls. Well-branched stalks with nine to twelve blooms per stalk. HC 1966.\$20.00

Order directly from this list. Rhizomes will be true to name and disease free. Gift iris with each order. California customers please add 5% sales tax. Price list of other irises on request.

INTRODUCING FOR 1969

TOPAZ GEM (R. Blodgett). Sdlg. 67-37. ML. 36". (Sib of Apollo's Gift X Indian Fringe) Sparkling golden buff with a blending of rose on the falls; matching beard. Closed standards and semiflaring falls; good substance and branching. HC '68.\$25.00

PREVIOUS INTRODUCTIONS

GALA ROSE (A. G. Blodgett) TB. 36". M. Sdlg. 63-57B (Cashmere X Career Girl). Ruffled clear rose-pink self; red beard. HC '64.\$20.00

INDIAN FRINGE (R. Blodgett). TB. ML. 34". Sdlg. 64-09 (Rainbow Gold X Schroeder 60-64-21). Heavily fringed, golden tan self. Large flowers on well-branched stalks. HC '67.\$25.00

APRICOT DRIFT (R. Blodgett). BB 24". EM. Sdlg. 67-12A (2-47 X Top Flight) Nicely proportioned apricot self, orange beard.\$10.00

APOLLO'S GIFT (R. Blodgett '67). 34". ML. Sdlg. 63-33 (Rainbow Gold X Illini Gold). Light yellow self, yellow beard. Well-formed, ruffled and fringed, heavy substance and well-spaced branches. HC '66.\$20.00

REDWOOD EMBERS (E. Blodgett '67). 38". ML. Sdlg. 62-87A (Storm Warning X Bazaar). Flared, garnet-red self. Lavender beard, heavy substance. HC '66.\$20.00

BLODGETT IRIS GARDENS

1008 East Broadway

Waukesha, Wisconsin 53186

YOUTH PROGRAM

Is It Going To Be A Psychedelic Movement?

Larry L. Harder

Young people of America! We are ready to "stir up the pot and bring it to a boil" to begin helping you in your interest in irises. Mothers and fathers, brothers and sisters, you will play your parts in this upheaval, won't you!

The Committee appointed by the American Iris Society to work up a program for young people interested in irises has written to many members of the AIS, has talked personally with many of you, and now is appealing to each and every one to help us on this program which would strengthen the growth of the interest in irises a hundredfold and more. This isn't a tough, nor a difficult program, but one we hope that each of you will take to heart to work along with us so that the program can be started and something can be accomplished.

All we want to do is interest our young people in irises.

Do you think this is going to be a difficult task? "Isn't it hard to interest anyone in irises?" you say. I know that it is difficult for some of us to make up our minds to help with any cause, but I personally feel that more of you will take this cause a bit closer to heart because it does affect an interest that is close to your heart—your irises.

Do you think we should leave it up to just chance that all of our future irisarians and hybridizers need to be born with an inborn interest in irises. Can't we each interest young Johnny or Susie down the street, or next door, into asking their parents for a little space in the garden in which they can plant some irises that you can give to them. Once you have them basically interested, take further steps and show them how to hybridize. Or show them where they can write to find out any information they wish to know. We have members of the Society who are always willing to do a lot for us and who will be willing to answer their letters. But this program really affects all of us, because it really takes so little of our time and can reap for all of us a great deal of pleasure.

Already the American Iris Society does have some young people interested in irises. For these young men and women, we wish to promote their interest, so the Youth Committee will be presenting proposals to the AIS Board at regular intervals when they are meeting, so that we can activate a real interest in the Society for them. We don't wish to separate them from the regular participation with their older counterparts; we just wish to add additional diversions for their greater participation in AIS affairs.

One of the first things we would like to see happen and become a part of all show schedules is a Junior Horticulture Division in each show. How about setting up ten classes for specimen entries and for collections in each of your shows just for these young people, and then encourage them to participate? Prizes offered by your society in this division of your show would reap more benefits than those in the adult divisions, for we all know that the young are greatly interested in competition and often prove to be more competitive than adults. Call this division of your show the Youth

or Junior Section of the show. I would like to hear from those iris societies who already have incorporated this idea in their shows. The AIS Board already has approved a Silver Medal for the Junior Division.

The Youth Committee is planning to have pages in each issue of the *AIS Bulletin* devoted to the interest of our young people. Already we are contacting them to find out their various interests so that we can have reading material that is wanted and needed. Anyone who is interested in giving us subject material is invited to contact me. Let the Committee know too of any youngsters in your area who are interested in irises or who could be interested in our Society. We want to know about them even if they may not be able to afford to join the Society.

We are hoping to work up round robin programs which will be wanted and enjoyed by all the participants. We have young people who are more knowledgeable than I, which helps them to span the age barrier, but we need to help those who are not so knowing. So we are planning to work the program to the satisfaction of everyone involved. We hope to capture the interest of a great many of our young people. I can personally vouch that joining a robin was one of the greatest things that happened to me when I joined the AIS, for I was young and inexperienced and the robin members were a great help to me. I hope these words will encourage all of our young people to try at least one robin. Give them a chance—stay with them for a year—and I'll bet there will be a few of you who will want to let them drop. Letter writing isn't so difficult once you get to know something about your subject. It takes a while to acquire a full knowledge, so don't feel bashful about exposing your ignorance; someone soon can put you on the right path to the correct knowledge you are seeking.

AIS has currently set up a committee to study our present awards system. The Youth Committee is thinking of asking this committee if it would be possible to have some type of award that could be won by our young people as a step towards the higher medals that are given. This award or awards would need to be unique as we would not wish to deter any young person from first seeking the regular medals of the Society, for we all know they are the ones who have the finest meaning. Does anyone have any ideas on what motive or basis we could make awards? AIS already has approved an award at the national convention.

There has been a need for a long time for the children of our AIS parents to be recognized by the AIS. In the report of the Board action, which follows this article, provision is made for this membership. When a young person holds a membership in AIS it will help us to be interested in him, so much more than we now show our interest. We have got to get our pot stirred up and that boiling point reached. Can't you see some of our truly interested young people being appointed as Judges for the American Iris Society. I know of several who could serve in this capacity very easily, as I feel they have as great a knowledge of what constitutes a good iris as some of our current judges. What has barred them from being appointed is the barrier of their not holding an AIS membership.

As all of you can see by now, this program is going to need the backing of a lot of people on a local basis. Iris societies are going to be the backbone of the structure that will need to be built to get this program underway. Your RVPs will be asked to help implement the program. But it will be the

local irisarians in every little town and in every big city and in every rural area to ask the young people of America, "Would you like to become interested in irises? You would! Great! Let me get you started for I've got some increase on a mighty fine iris that I can let you have."

It's not much that we are asking you to do. Just promoting your interest in the future of a flower with which we all have fallen in love.

General Plan For Junior Division of American Iris Society

(For members who have not reached the age of 19)

1. The organization will be a Junior Division of AIS—an integral part (not a section or an affiliate) of the Society.
2. It will be administered through the RVP's by a committee of five (5) members. The President, AIS, will appoint the Chairman of the Committee, who will recommend the other four members for approval of the AIS Executive Committee. This committee will draw up plans tailored to the needs and conditions in individual regions, and will work with regional personnel in every way possible to further the program. This committee is not authorized to obligate financially the American Iris Society without prior approval of the AIS Board of Directors or Executive Committee.
3. Dues will be as follows:
 - a. \$1.00 per year for any junior member whose parent or parents are AIS members. \$2.00 per year for any junior member neither of whose parents is an AIS member. The payment of the \$2.00 dues by a junior member entitles him to an annual subscription to the AIS Bulletin. In no case, however, will a family be entitled to receive more than one Bulletin.
4. AIS will publish the booklet, **THE JUNIOR IRIS GROWER**, for distribution to each junior member, after copy satisfactory to the AIS Publications Committee has been prepared. An original printing of 500 copies is authorized.
5. AIS-approved iris shows will be specifically requested to include in their schedules a Junior Horticulture Division consisting of a minimum of ten (10) classes for specimen entries or collection entries. A silver medal certificate will be awarded by AIS to the sweepstakes winner in such a Junior Division. A silver medal, a counterpart of that made available for the regular horticulture sweepstakes winner, will be offered by AIS on the same basis as for the current medals now in use.
6. A garden award, on a similar basis as for the Franklin P. Cook Award, will be authorized by AIS for an iris seen growing at a national Convention, which iris is originated by a junior member.
7. A "Junior Section" of 4 to 6 pages in the AIS Bulletin will be devoted to Junior happenings and affairs, as justified by the material submitted. The Junior Division Committee will select for this Section an editor who will work in cooperation with and under the direction of the Editor of the AIS Bulletin.
8. A Junior Robin Chairman will be appointed by the AIS National Robin Director, and Junior Robins will be established, as need is indicated.
9. As this organization grows, expansion and revision of these plans may be authorized by the AIS Board of Directors as need and feasibility are indicated. (Based upon recommendations by the Chairman, Youth Committee).

TOOTH ACRES

1969

INTRODUCTIONS

CANDY STICK. Sdlg. C-5616. TB. 34". ML. O1Pcm. Irish Charmer X (June Meredith x May Hall). Clear baby ribbon pink with deeper pink markings like a candy stick. The beautifully formed flowers have strong arched standards and flaring falls of satin texture. A new pink receiving many HC votes in 1968.\$25.00

SILVER BOUNTY. Sdlg. C-566. TB. 36". ML. V3FD. Sterling Silver X Blue Bounty. A sturdy plant supporting a mass of bloom. The flower is appealing, with soft violet standards and darker blue with red tinted falls. Fine form. A different bitone. HC 1968.\$25.00

Previous Introductions

POINT CLEAR. The pink with "it." The flare is there. 1968\$22.50

EGYPTIAN PRINCE. Dark and handsome. Pure purple. 1968\$22.50

IRISH CHARMER. Alluring in pink and white. HM 1968.\$15.00

MELODY IN BLUE. The blue that sings in the rain.\$15.00

REDENYELLA. BB. Red and yellow. From this comes red. HM 1968.\$10.00

CORA MAY PICKARD

TOOTH ACRES

ROUTE 2

BENTON, ILLINOIS 62812

1969 INTRODUCTIONS

SUNSET SKY. Sdlg. 32A-2. TB. 36". M. S empire yellow; F phlox purple with a rosy flush. F edged yellow-tan. Deep yellow beard. Pink Dresden X Judy Marsonette. Good substance; wide S and F. Closed S. Good branching; many buds. HC '68\$25.00

SAN JOSE ROSE. Sdlg. 32A. TB. 36". Rich old rose self with blue blaze below yellow beard; brown thumb prints at hafts. Wide parts, ruffled. Sib to Sunset Sky with same good qualities\$25.00

PREVIOUS INTRODUCTIONS

SUNSET SHADOWS '68. HC '67. Aster violet\$22.00

SUNSET BLUES '65. HM '67. Broad Melodrama type\$10.00

TAFFY TWIST '66. HM '68. Greenish buff; unusual\$15.00

(Waves and Foam '68 was taken off the market and money refunded, because it did not meet my standards.)

FREE COLORLESS CATALOG.

SPURIA LIST

BERNICE R. ROE

Roe Nursery

1051 Bird Avenue

San Jose, Calif. 95125

REES INTRODUCTIONS FOR 1969

WALTZING (Clara B. Rees). TB. 39". Mid-season. (Arctic Flame X Celestial Snow). There are many lavender irises, but this clear, deep lavender self is set apart by that indefinable quality known as personality. Big, crisply ruffled blossoms have closed standards and broad flaring falls. Beard lavender shading to white. Three branches and terminal. Fertile both ways. Altogether lovely and much admired in our garden. This iris would have been introduced earlier, but a garden mistake cost us most of the stock. Stock still limited, one to a customer. HC '66.\$25.00

CHILDREN'S HOUR (Clara B. Rees). BB. 26". Mid-season. (Melodrama X Twenty Grand). Closed yellow standards, flaring lavender falls, with golden hafts and yellow beard. Although this color pattern has become common in tall bearded, we believe it to be highly distinctive in border irises. Fertile both ways. Our first border introduction. \$10.00

Earlier Introductions

ANGEL BRIGHT (Clara B. Rees '66). TB. 38". Mid-season. (Alice Lemen X Marilyn C). Big bright white, with outpouring of gold in the throat. Three branches and terminal. Fertile both ways. This iris sometimes requires establishment, but an established clump is stunning. HM '68.\$15.00

LIGHT AND LOVELY (Clara B. Rees '66). TB. 34". Early to mid-season, (Yellow Organdy X Party Dress). A subtle blending of cream, French white and antique gilt which gives an overall effect of light yellow in the garden. Superb flowers on strong, well-branched stems. Fertile both ways. HC '64.\$15.00

REES IRIS GARDEN

1059 Bird Avenue

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Sheaff Iris Gardens 1969 Introductions

PEARL KEMP. M. 32". Sdlg. 62-21-A (three generations of breeding involving Fay pinks, Dream Dust, and Celestial Snow). Beautiful iridescent cream with bright gold beard and a matching touch of gold on the hafts. The mixture of pink and blue blood lines gives the flower an opalescent quality with hints of ice blue and lemon in the cream. The standards are closed and round; falls are round and flaring. The well-substantiated flower is delicately ruffled and laced. 9 buds to a stalk; healthy foliage.\$25

UP AND AWAY. M. 34". Sdlg. 62-14-E (Sunrise Serenade X Esther Fay). (Sunrise Serenade derives from Lipstick lines). This floriferous white with a red beard inherits the form, vigor, and foliage of Esther Fay. Those who have had trouble growing red bearded whites should have success with this one. The perfectly-formed and ruffled flower is stark white with a red orange beard. It is not unusual for a stalk to open four well-placed flowers at a time. The flowers are so rounded and a clump is so floriferous that it resembles a bundle of white balloons which have just escaped the balloon man's grasp — thus the name.\$25

One each of the above \$45

1968 INTRODUCTION

TANGERINE TANGO. M. 28". Sdlg. 61-20 (Hall pink sdlg. x Celestial Glory) X sib. A very unusual blend of apricot and lemon. The standards are deep peach bordered apricot and laced with lemon-yellow; the falls are apricot bordered and laced with lemon. The flower is nicely ruffled with flaring falls and curved standards which are short, and stand slightly open but never flop. 7 to 8 buds. Produces unusual seedlings.\$20

One each of the above three for \$60

Stop by to see these and others on your way to the Milwaukee convention.

Sheaff Iris Gardens

627 E. Main Street

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Genetics for Iris Breeders

II. INTRODUCTORY CYTOGENETICS AND THE GENETICS OF TETRAPLOIDS

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The author wishes to acknowledge the support of a National Science Foundation Graduate Fellowship

INTRODUCTION

The merging of cytology, the study of the cell, and genetics, the study of heredity, is cytogenetics. It is an old, important, and still challenging branch of genetics, emphasizing the study of the intracellular structures and mechanisms involved in the transmission of the hereditary information. Cells were first observed in the 17th century, but not until the middle 1800's was the cell theory proposed by Matthias Schleiden and Theodor Schwann: The cell is the basic unit of structure and function of all organisms. Rudolf Virchow's theory of cell lineage a few years later correctly proposed that all cells arise from pre-existing cells. This was significant in that it meant that hereditary information must be contained in the cells and transmitted from each cell to its daughters at division. The process of mitosis, the elaborate nuclear division which accompanied cellular division, was described by Walther Flemming in 1882. At the same time he gave the name chromatin to the stainable portion of the nucleus. Shortly thereafter the bodies that condensed from the nucleus during mitosis were named chromosomes, colored bodies.

By 1900 it had been learned that the chromosomes were distinct; they did not disintegrate at the end of mitosis, but only became visually indistinguishable; they occurred in pairs; they split longitudinally at mitosis, and each daughter cell got a complete set exactly like the original cell; they underwent a more complicated division process when forming gametes so that each gamete got only one chromosome of each pair; the only thing the sperm contributed in fertilization was a nucleus (chromosomes) which fused with the egg nucleus. Since, contrary to the then-popular concept of maternal inheritance, it was soon demonstrated by controlled reciprocal crosses that the male (pollen) contribution to the hereditary make-up of the offspring was equal to the female (ovule) contribution, the chromosomes were strongly implicated in heredity by their identical behavior and equal numbers in both male and female gametes. When the behavior of Mendel's factors was compared to the identical behavior of chromosomes, the conclusion was inescapable: the genetic factors (originally abstract elements) must be located in the chromosomes (concrete cellular elements). At this point cytogenetics became a subject in itself.

The genetic behavior of tetraploids is a very complicated study still of theoretical interest to geneticists. In the classic Mendelian sense, the segregation of characters and the various ratios obtained from crosses are determined by the behavior of the chromosomes during meiosis, *i. e.*, during the

formation of the gametes. Chromosome behavior in diploids is relatively simple, but in tetraploids it is much more complex. This complex chromosome behavior, of which there are several types in tetraploids, results in equally complex genetic behavior. It is consequently difficult to treat tetraploid segregation ratios separately from tetraploid cytogenetics. The interrelationship of these two studies will be the subject of much of this article.

The contributions of cytogenetics to the advancement of iris hybridizing have been very important. Simonet, Randolph, Heinig, Mitra, and Lenz have all made significant contributions, and the iris literature contains many excellent papers by these authors. Some of their papers are listed in the bibliography of this paper; other references will be found in their bibliographies. The reader is urged to study as many of these articles as possible. It would be presumptuous to assume that this article will contribute any new significant knowledge. It will, however, attempt to present a general introductory background of cytogenetic principles and review specific applications to the various areas of interest to hybridizers. As in the first article of this series, an attempt will be made to define all newly-introduced terms, but the reader will be expected to have a background equivalent to the material presented in the previous article (Kidd, 1968).

DIPLOID CYTOGENETICS

A diploid plant has two sets of chromosomes. Considering only one of these sets, a haploid number, we find that when observed at mitosis most chromosomes have a visibly distinguishing appearance. They occur in different lengths, with or without *satellites* (small segments at the ends attached only by a thinner thread), and with different ratios of arm length. The arm lengths are defined by the position of the *kinetochore* or *centromere*—both of these words are synonymously used for the name of the chromosome region that is the last to divide, orients the chromosomes in mitosis and meiosis, and is the position by which chromosomes are pulled apart and moved to the separate ends of the dividing cell.

Figure 1 shows two diagrammatic representations of the same chromosome labeled with the various applicable terms. *Idograms* (diagrammatic representations of the haploid chromosome complement of a species or variety) usually show the chromosomes as single structures as in 1a, but photomicrographs of actual chromosomes frequently show structures as in 1b because with colchicine treatment it is technically easier to obtain chromosomes in this stage. Intermediate representations may also be found in the literature. In addition to the visible differences that may occur among chromosomes, genetic studies show that each chromosome has a different set of genes (defined by function). Thus, each chromosome of the haploid set is unique in genetic function and frequently in appearance. This individuality is maintained throughout mitosis and meiosis. The *karyotype* is the chromosome complement of an individual. Virtually all members of a species will have the same karyotype. Conversely, the karyotype can often be used to distinguish and identify species.

Mitosis and meiosis were introduced in the previous article and a diagram of diploid meiosis was presented. As a brief review remember that mitosis produces two cells both genetically identical to the original cell: each chromosome in the cell duplicates itself, the two halves of each separate and go to opposite ends of the cell, the chromosomes at each end

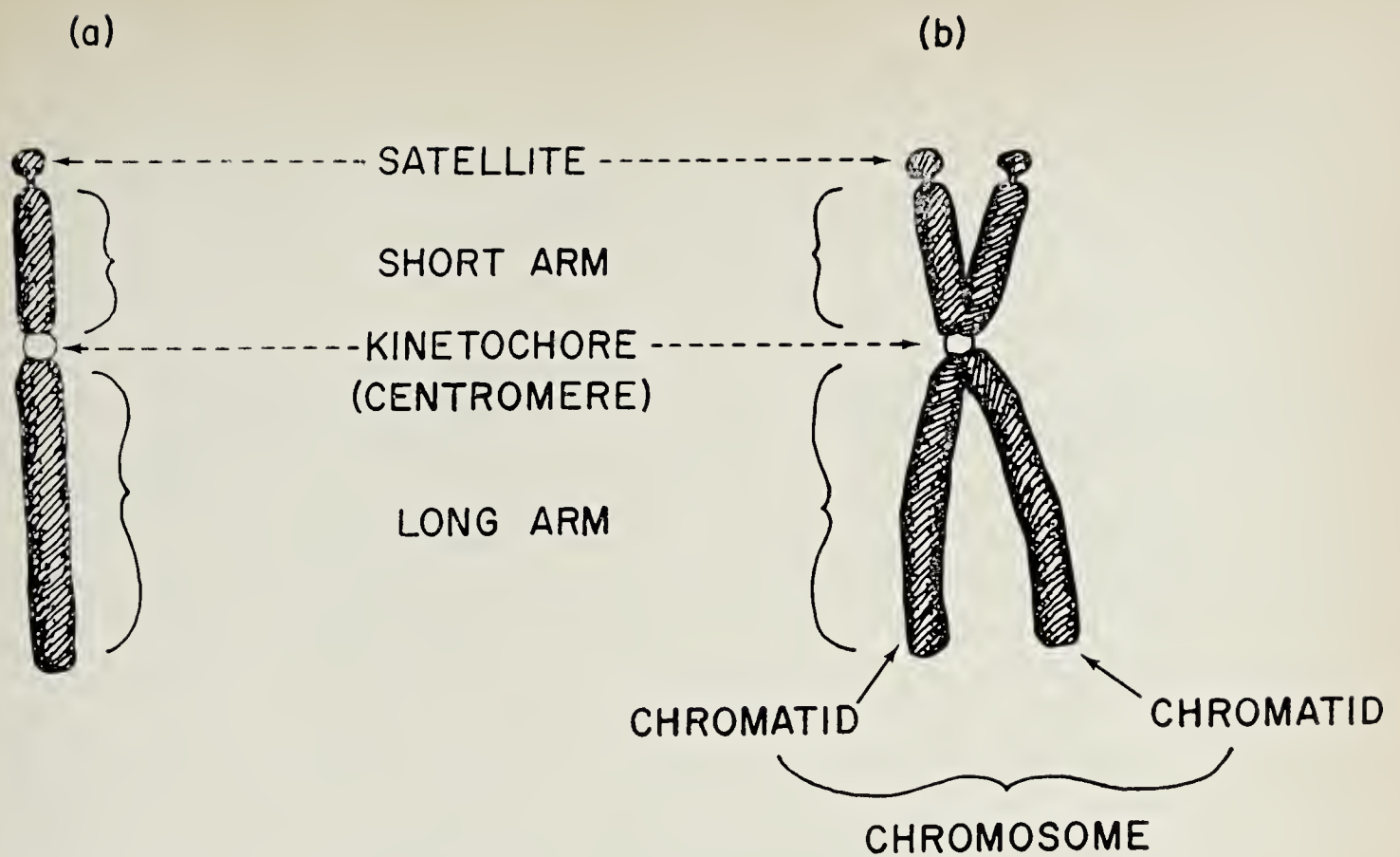


FIGURE 1. Two diagrammatic representations of a chromosome. Idiograms frequently represent a chromosome as a single structure as in (a). A photomicrograph of the same chromosome following colchicine treatment would show a doubled structure as in (b).

begin to reform nuclei, and finally a cell wall is formed dividing the cytoplasm into two parts. On the other hand in meiosis the homologous chromosomes pair as well as duplicate, creating a four stranded structure called a *tetrad*.* At this point each strand is called a *chromatid*. (In general whenever a chromosome divides, the two resultant strands are called chromatids until the kinetochore divides, *i. e.*, a chromatid is a subdivision of a chromosome.) The four chromatids are not completely separate since they are still held in pairs by the kinetochores. The homologous kinetochores then separate, pulling their attached chromatids with them. **Two** new cells result each with only half the number of kinetochores with the chromatids still held in pairs. Without replicating the chromatids, these cells enter a mitotic-like division during which the kinetochores divide and one chromatid goes with each kinetochore to the separate ends of the cell. One cell thus gives rise in the two divisions to four cells each with a haploid chromosome complement.

Occasionally the meiotic process fails to occur at all, or either the first or the second meiotic division fails to occur. If the resulting cell is capable of functioning, it may become a gamete that contains the full diploid number of chromosomes. A gamete with the unreduced chromosome number is

*Botanists use the word *tetrad* as the name of a group of four spores produced together, *e. g.*, the four microspores produced by one meiosis which develop together into four pollen grains. Botanists use *bivalent* for the structure geneticists call a tetrad, since it can be seen microscopically as a paired structure. In discussions of genetic linkage and recombination the four-strandedness is of major significance, and hence, I will use *tetrad* only in its genetic sense.

referred to as an *unreduced gamete*. This terminology is a shortened form that must not be misconstrued: there are an unreduced number of chromosomes but loci heterozygous in the plant may be "homozygous" in the unreduced gamete. Thus, different unreduced gametes from the same plant are not necessarily the same genetically. Since there is excellent material available on unreduced gametes in irises, the interested reader is encouraged to pursue the subject. For the present we will simply note that they do occur and can be recovered.

Little is understood about the mechanisms that cause chromosomes to pair in meiosis, but the pairing does occur and can be shown to be very specific. The slight variation in staining intensity along the length of a chromosome can be used in some organisms to identify the individual chromosomes, since the pattern of variation is stable and uniquely characteristic of each chromosome. When homologous chromosomes pair in meiosis, these variations precisely coincide so that the pattern is preserved and even intensified. This is most apparent when the four chromatids of the tetrad are initially so tightly bound together that there appears to be only one chromosome. Genetic analysis also indicates that this meiotic chromosome pairing, termed *synapsis*, can be exact down even to the subunits of the genes. While paired, the chromatids can exchange segments with the chromatids of the homologous chromosome. This exchange can most easily be conceived as occurring by breakage of two chromatids at exactly corresponding positions and subsequent fusion of the broken ends as is illustrated in Fig. 2. Since at any locus the alleles in the two homologous chromosomes need not be the same, separate factors originally inherited together because they were both linked together in the same chromosome can come to be in separate chromosomes. The exchanges occur as random events along the length of the chromosome, with the result that the number of breaks or exchange points between two loci shows a general proportionality to the length of the chromosome separating them. Two genes close together will only rarely be separated, while two genes at opposite ends of a chromosome will behave as if not linked at all.

The likelihood of demonstrating linkage in irises is negligible and such a demonstration is not anticipated in the near future. Linkage can, however, be one of the contributing factors to the sometimes unexpected results found in the seedling rows, especially if the characteristic observed is controlled by more than one locus.

In spite of the recombination of alleles at linked loci which occurs through the reciprocal exchange of segments of homologous chromosomes during meiosis, an individual chromosome maintains its basic structure through successive mitoses and remains virtually unchanged even in meiosis. The structure of a chromosome is determined by the structure of its constituent genes, not their function. Thus, two different alleles of one locus will frequently differ in as little as one subunit of the one to two thousand subunits that make up that gene, but the functions of those two chemically "almost identical" alleles could be vastly different. In contrast to this near identity of alleles, two distinct loci will have virtually no similarity in the pattern of their subunits. As an analogy consider the words *leather* and *heather* as representative of two alleles of the same locus; they are virtually identical when the pattern of their subunits is considered, but the meanings,

the analogs of genetic function, are vastly different. A representative allele at another locus might be *talkative*, the same sorts of subunits but a completely different arrangement. The recombination of alleles at meiosis cannot significantly change the physical nature of the chromosome since the order of the loci does not change.

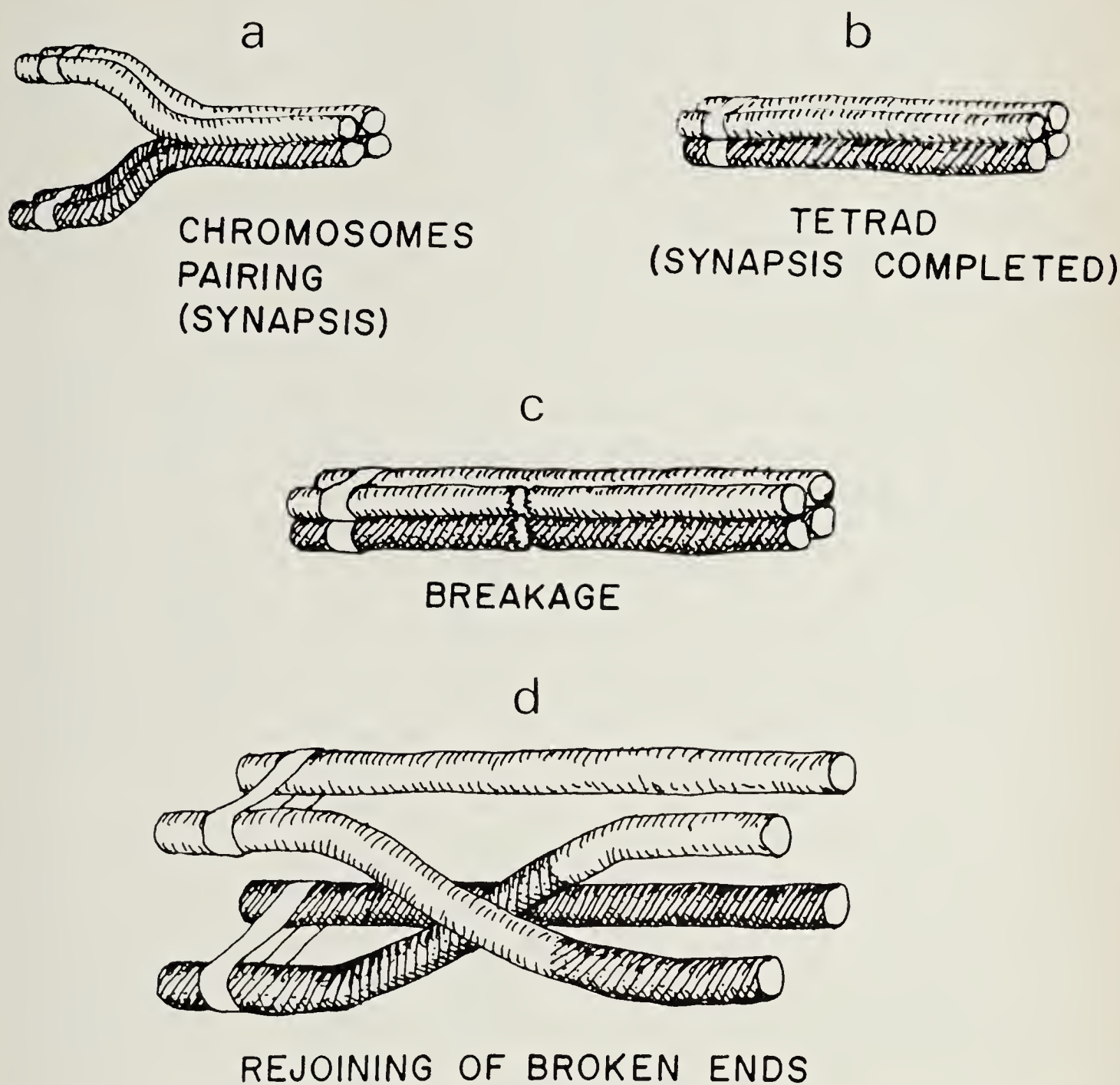


FIGURE 2. A diagrammatic representation of homologous chromosome segments followed through steps early in meiosis including recombination. The chromosomes have replicated before they begin pairing (a) so that the completely paired structure (b) is composed of four chromatids; hence the name *tetrad*. The undivided kinetochores are here represented as elastic bands holding the "sister" chromatids together. Recombination involves first the "breaking" of the genetic strands in exactly corresponding positions (c) followed by the rejoining of the alternate broken ends. The process of breakage is very complicated and is never observed as here depicted. The genetic material, however, does form new connections as illustrated in the exploded tetrad (d). Soon after the rejoining the tetrad is pulled apart by the separation of the two kinetochores, each now attached to one non-recombinant chromatid and one recombinant chromatid. The three dimensional representation of the tetrad attempted here is more accurate biologically than the representation in Fig. 4, diploid meiosis, in the previous article (Kidd, 1968). The last tetrad above (d) was exploded for illustrative purposes only—the kinetochores are still single undivided elements as in Fig. 1, and the four chromatids are still tightly paired as in the previous tetrads.

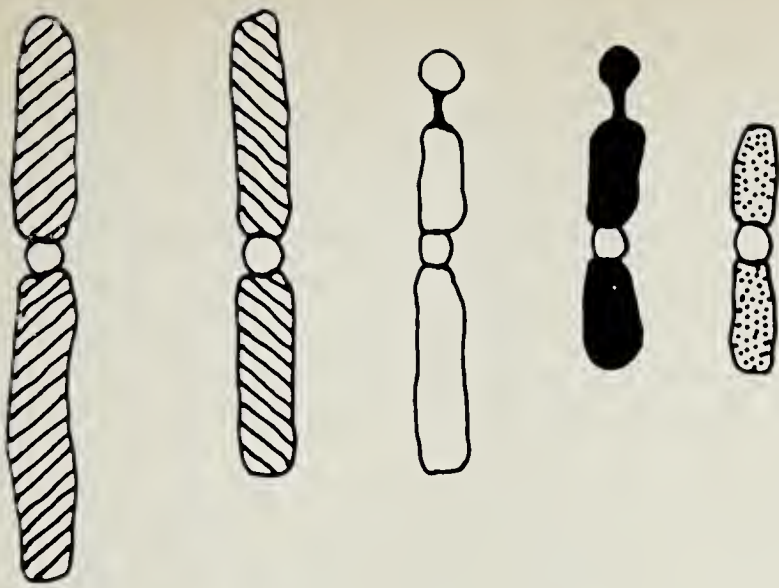
However, just as genes can undergo rare mutations, chromosomes can change by reshuffling the loci into new arrangements. Four types of chromosomal changes important in the evolution of species can be readily illustrated using words for genes and sentences for chromosomes.

1. A duplication is one chromosome having some of the genes present some of the genes present twice.
2. A deletion is the of some genes normally present.
3. An inversion is $v \text{ } \text{jo} \text{ } \text{ialo} \text{ } \text{suiddij} \text{ } \text{aq}$ segment of the chromosome so that the order of genes is different.
4. A translocation is the repositioning reciprocal exchange. It can be a of a block of genes from one chromosome to another.

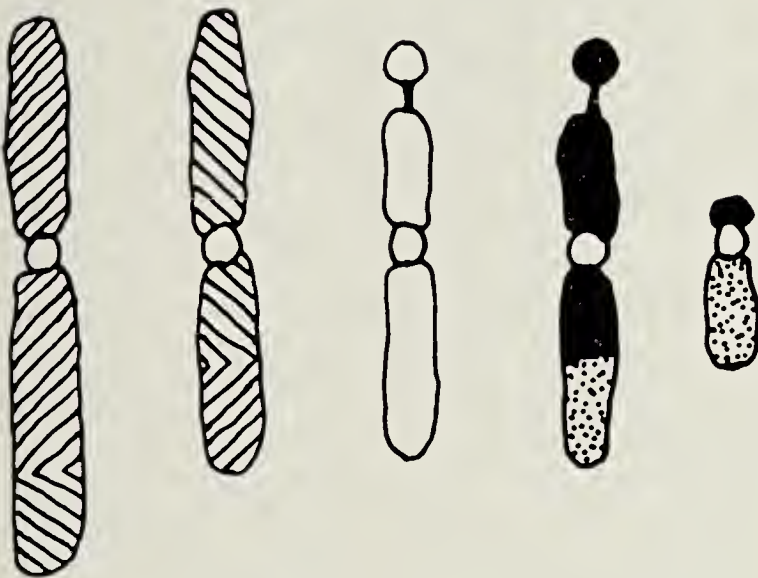
These sentences seem slightly bewildering at first, but except for the "deletion" they have all the information and one can understand them after a little thought. Since the order of genes in a chromosome is usually not important in the functioning of the gene, the plant has less trouble with these rearrangements than you did. The "deletion" of course represents a loss of information. In diploids deletions are usually deleterious and hence do not survive; they are not so harmful in tetraploids. Initially such changes occur in one cell of one individual. If the change happens to be included in a germ cell and has some advantage to the offspring for whatever reason, then—given many generations—this new arrangement may come to be the normal order in all individuals of the species, but the efficacy of natural selection will produce some change in the karyotype of a species given enough time. Thus, we find that species with similar karyotypes are more likely to be closely related than species with quite unlike karyotypes. Also, the chromosomes that appear similar in two closely related species will be more likely to contain the same loci in much the same order. This is very important since the accurate meiotic pairing of the chromosomes depends upon the two "homologs" having an almost identical set of loci.

Figure 3 shows idiograms of three hypothetical species. All of them have basically the same numbers and kinds of genes, although the alleles at the corresponding loci will frequently differ among the three. The chromosomes of species A are arbitrarily shaded and the chromosomes of the other two are shaded to show how their blocks of genes are related to the chromosomes of species A. A quick comparison of species A and C shows that even the number of chromosomes need not remain constant even though there is no loss of genetic material.

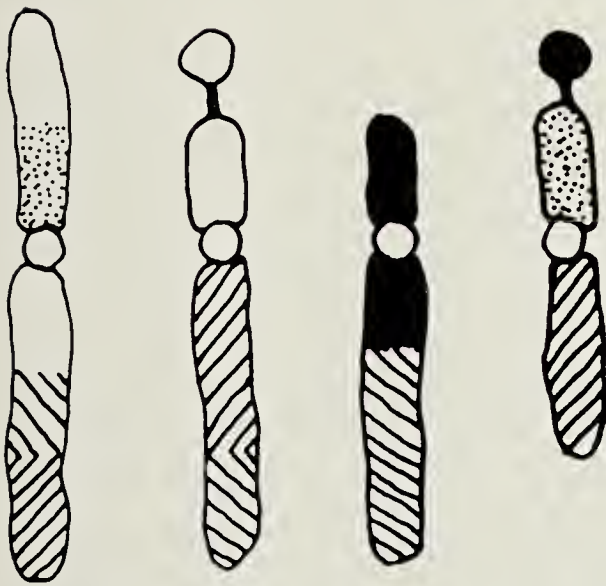
Now consider the hybrid between these two species, A and C of Fig. 3, with quite different karyotypes. The hybrid has one complete haploid set of chromosomes from each parent. It therefore has two alleles for all the loci necessary for the plant to live and grow. The loci, however, are not arranged in the same way in the two different *genomes* (the haploid complements of genes in a species; the smallest complete set of loci). In mitosis this presents no problem since each individual chromosome functions independently. But in meiosis the chromosomes must function in pairs and such pairs do not exist in the hybrid. Each chromosome from species A finds that its set of loci are scattered among several of the chromosomes of species C and that loci it does not possess are intersperced among them. Pairing with any of these chromosomes is impossible. At the first division of meiosis normally paired kinetochores separate, but with no paired kine-



SPECIES A



SPECIES B



SPECIES C

FIGURE 3. Idiograms of three hypothetical species which are closely related. Similarly shaded segments represent homologous segments of chromosome relative to species A; this is not meant to imply that A is an ancestral species — the true ancestral species probably had different, but intermediate, arrangements. Species A and B differ by only two reciprocal translocations; species C differs from both A and B in a much more extensive and complex way. Note especially that while the chromosome number can vary, the amount of genetic material need not vary.

tochores in this hybrid the process breaks down and no functional gametes are produced. Such is the usual cause of hybrid sterility.

Analogous to these two hypothetical species would be a diploid eupogon species such as *Iris pallida* ($2n = 24$) and a diploid oncocyclus such as *I. iberica* ($2n = 20$). (The chromosome number of a species is usually given in reference to its haploid gametic number, represented by n .) Meiosis of hybrids between such species has not been adequately studied, but preliminary observations by Heinig (personal communication) show little pairing in such hybrids. This is consistent with the differences in their karyotypes and the observed sterility of such varieties as Shiraz, Mozo, and William Mohr.

Next consider the two hypothetical species with very similar, though not quite identical, karyotypes in Fig. 3. Each chromosome of species A is able to find a single chromosome in species B that contains most of the same loci in almost the same order. The similarities are greater than the dissimilarities and the two are usually able to pair, though they may not be able to exchange segments. Such a pair of chromosomes is called *homeologous* (having an almost identical complement of loci). An interspecies hybrid with pairing of homeologous chromosomes can be expected to be at least partially fertile. One example of such hybrids is the cross of a diploid regelia species ($2n = 22$) and an oncocyclus species ($2n = 20$). Though there is some irregularity of pairing for the largest chromosomes, the majority of the chromosomes of each genome pair with a homeologous chromosome and the fertility is generally quite high (Simonet, 1932; Randolph & Mitra, 1960). It is worth emphasizing here that the hybridizer cannot expect such fertile hybrids to show Mendelian behavior. Mendel's Laws are based upon the regularity of the normal meiotic division; these hybrids will frequently have abnormal meiotic behavior because of irregularities in the pairing of the homeologous chromosomes. Of course, some loci will show Mendelian behavior, but which ones and how many cannot be predicted for any particular hybrid.

In irises fertility in diploid interspecies hybrids shows virtually the complete range from essentially complete fertility to complete sterility. An intercross of two oncocyclus species shows essentially complete fertility; an oncocyclus species crossed with a diploid hexapogon (Regelia) species yields moderately fertile hybrids; a hybrid between an oncocyclus species and any of the diploid species such as *I. variegata* will be essentially sterile.

In spite of the differences in the karyotypes of various species with the same chromosome number, it appears that the most important consideration for the hybridizer is chromosome number. Two diploid species, or even two named varieties, will be likely to yield fertile hybrids if they have the same chromosome number. The history of iris hybridizing, however, shows that offspring can be obtained from hybrids between species with different chromosome numbers. This considers, of course, only chromosomal sterility. There are many possible causes of sterility that are genetic but independent of chromosome behavior. These cannot be predicted in advance and the hybridizer must simply take his chances. It is important to remember that fertility and sterility are not absolute conditions but are relative. Only a full pod of viable seeds from every pollination can be considered as complete fertility. Similarly, a plant that only rarely sets and yields viable seeds

is much more nearly completely sterile than completely fertile. William Mohr, for example, should be designated as "almost completely sterile" since by far the majority of pollinations fail to yield viable seeds, even though "she" has many well-known offspring from occasional unreduced gametes. Thus, these less fertile hybrids from crosses between varieties or species with different chromosome numbers can be very important in the development of new varieties, but progress along such lines will generally be slower.

UNBALANCED CHROMOSOME COMPLEMENTS

In some plants, especially those derived from interspecific hybrids, the chromosomes will not all be able to form pairs at meiosis because there will be one missing or one extra chromosome. Such a condition is *aneuploidy*. In general, whenever the chromosomes in a cell cannot be precisely divided into genomes, that cell is aneuploid (*an* = not + *eu* = even + *ploid* = fold). The term would naturally apply to an organism characterized by such a karyotype. This is not to be confused with the hybrid of A and C in Figure 3 or a 21 chromosome regeliocyclus hybrid. These hybrids would be euploid since there are exactly two genomes present even though an odd number of chromosomes. Aneuploidy is a very important consideration to the iris breeder because of its large-scale effects on the phenotype and its frequent occurrence in modern hybrid irises.

As an aid in understanding the problems that arise with aneuploids, let us start with a hybrid between species A and species B shown in Figure 3 and follow the origin and subsequent genetics of an aneuploid. We have seen that the homeologous chromosomes in this hybrid will tend to pair as normal and will produce normal gametes. The independent segregation of the different homeologous pairs will produce gametes with slight deficiencies or duplications which, depending upon the genes involved, may or may not be deleterious to the gametes and subsequent plants. More significant departures from the normal occur when, at meiosis, a homeologous pair of chromosomes does not pair. When the rest of the pairs separate and go to opposite ends of the cell, these unpaired chromosomes may randomly be included in one or the other of the resulting nuclei, or be lost. If they are both included in one nucleus and this resulting nucleus becomes a functioning gamete, the offspring of the gamete and a gamete from either of the two parental species will have an extra chromosome and, hence, be aneuploid. It is impossible to say beforehand what the effect of any one chromosome in extra dosage will be. However, virtually all known aneuploids of this type, generally designated as $2n + 1$, show some noticeable deviation from the normal. This may or may not seriously affect the viability of the plant; it depends upon which particular genes are present on the extra chromosome. The genetic consequences of this aneuploidy are more easily predicted. Since the three homologous or homeologous chromosomes in this aneuploid cannot pair and segregate normally during meiosis, a large fraction of the gametes resulting from meiosis will have an extra chromosome from this trio. If these are male gametes they generally will not function, and immediately we have partial sterility (or incomplete fertility) of this aneuploid as a male parent. Such viability problems are not normally found in the ovule, or female gamete; the fertility of the female is not generally hampered by this degree of aneuploidy.

The breeding consequences of aneuploidy are also worth considering. As an example let us consider this aneuploid crossed with a normal diploid plant. For simplicity we will use the aneuploid as a male parent; only normal gametes will thus be observed. We have seen earlier that the probability of obtaining a given allele in a particular gamete is $\frac{1}{2}$ —there are 2 alleles present at each locus and each is equally likely to be found in the gamete. With an aneuploid, however, this is not always true. A chromosome present in extra dosage means that all loci located on that chromosome have 3 alleles present. Each of those alleles is approximately equally likely to be found in a normal gamete. This means that the probability of an allele at a locus on one of these chromosomes being included in a particular gamete is $\frac{1}{3}$ instead of $\frac{1}{2}$. The aneuploid AAa crossed with a diploid Aa would yield $\frac{5}{6}$ with the dominant phenotype of A and $\frac{1}{6}$ with the recessive phenotype of a . This deviation from a 3:1 ratio would not be significant except when large numbers of seedlings were being raised. Nonetheless, this is one mechanism that could give rise to some apparent departures from Mendelian ratios as observed occasionally in iris breeding.

As another more concrete example from current iris hybridizing, consider the triploid resulting from a cross of a C. G. White arilbred with a pure oncocyclus. The hybrids are assumed to have two homologous sets of ten aril chromosomes and one set of twelve tall bearded chromosomes, without homologs. During meiosis the homologous chromosomes of the aril sets will pair and form normal *bivalents* (the meiotic structure formed by two paired chromosomes). The twelve tall bearded chromosomes will form *univalents* (a single unpaired chromosome as observed in meiosis). In other species several different things have been observed to occur at this point (Darlington, 1958). Assuming iris behave similarly, the most likely will be for the bivalents to separate normally and begin to form two nuclei. The univalents may either be carried along, undivided, into one of these nuclei, or they may divide, as in mitosis, and be included in both nuclei. However, division or any movement toward the poles of a univalent tends to be later than the separation of the bivalents. A frequent result is that the two new nuclei have already begun to form before any of the univalents can be included. These remaining univalents may then group to form other nuclei, but with their unbalanced number of chromosomes, they are a dead end. The viable nuclei have basically the haploid number of aril chromosomes derived from the paired aril chromosomes plus possibly some extra chromosomes of tall bearded origin that happened to be included before the nuclear membrane formed. These nuclei then divide again, producing gametes with one set of aril chromosomes and whatever tall bearded chromosomes might have been included undivided from the first division; the tall bearded chromosomes that divided at the first division cannot divide again and will be randomly distributed or may be lost in the middle of the cell when the two new nuclei form. Thus, gametes with chromosomes number n , $n + 1$, $n + 2$, . . . , $n + 12$ are theoretically possible (n equals the aril genome of 10 chromosomes, the numeral refers to the number of tall bearded chromosomes), but the most likely number will probably be between n and $n + 4$. Gametes with the unbalanced sets ($n + 1$ to $n + 11$) are generally not as viable as balanced haploid or diploid gametes, but this seems to depend on the particular genetic makeup of the species involved and the particular

extra chromosomes. Generally, the gametes intermediate between the diploids and haploid are the least viable.

As you can see, the most likely result of intercrossing two of these triploids is a very rapid return to the diploid oncocyclus (aril) state, theoretically. There are, unfortunately, many unknowns in irises that may complicate this understanding. The homology of the tall bearded chromosomes toward the aril chromosomes is unknown; if there is some homology of the tall bearded chromosomes toward the aril chromosomes, recombination could take place and there could be *introgression* (the transfer of a few genes from one species into another (Anderson, 1949)) of tall bearded genes into otherwise aril genomes. This of course could be a most desirable occurrence if more vigorous plants resulted. The degree to which irises will tolerate unbalanced gametes is unknown, and this will make a great difference in the chromosome complement of the seedlings. As stated above, the more unbalanced gametes are generally less viable and, when pollen grains, germinate slower (if at all) than a balanced gamete such that they almost never function in fertilization. The research done on other plants indicates that in this type of triploid x triploid cross, the seedlings will be mostly aneuploids very close to the diploid chromosome number. Since almost all triploids are greatly reduced in fertility and this generally applies to triploid irises, it is to be expected that these particular triploids will likewise have reduced fertility. Reduced fertility is not synonymous with sterility, however, and this type of breeding does seem to offer exciting possibilities.

TRIPLOID CYTOGENETICS

Our discussion of aneuploids led to an example deriving from triploids. Some of the statements made and points brought up while discussing this example need to be amplified. In the particular triploid discussed the third set of chromosomes was non-homologous and in meiosis did not pair with any of the other chromosomes. Such a triploid would be an *allotriploid* (*allo* = other, indicating the presence of different genomes in the makeup of the triploid.) As this distinction implies, triploids with only one genome in triplicate also exist and are designated *autotriploids* (*auto* = same). In this case each chromosome is represented three times and in meiosis any two of the three can pair. In fact, all three homologs can form one structure called a *trivalent*. In either case meiosis is slightly to severely upset, and gametes, if formed, tend to be aneuploid. Earlier we said that aneuploid male gametes were highly sterile but that aneuploid female gametes of the $n + 1$ type were normally functional. The gametes formed by triploids, however, can be $n + 2$, $n + 3$, *etc.*, and this greater imbalance is generally nonviable even in female gametes. The result in either triploids with three sets of homologous chromosomes or triploids with two sets of homologous chromosomes and one non-homologous set is a very high degree of sterility.

Allotriploids can also occur with three non-homologous sets of chromosomes. A cross of a 40 chromosome *I. pumila*-tall bearded hybrid with a 20 chromosome oncocyclus species would yield a triploid with one 12 chromosome tall bearded genome, one 8 chromosome *I. pumila* genome, and one 10 chromosome oncocyclus genome. While such a triploid might make a good garden plant, it would be as sterile as the proverbial mule. The triploid plants themselves, of whatever origin and chromosome composition, are not

unbalanced, are quite viable as mature plants, and may be extremely pleasing garden subjects.

TETRAPLOID CYTOGENETICS

Tetraploids have, by definition, four genomic sets of chromosomes. The genetic behavior of tetraploids is consequently much different from that of diploids: the different possible ways that chromosomes may pair lead to different segregations of the alleles on those chromosomes, and also four potentially different alleles are present for each locus. The cytogenetic behavior of tetraploids is the major determiner of the possible gamete types and their probabilities.

Tetraploids are generally divided into two types depending upon the relationships among the four basic chromosome sets. If all four sets are homologous, *i.e.*, there are four representatives of each chromosome, the tetraploid is called an *autotetraploid*. If one or more of the chromosome sets is not homologous to the others, the tetraploid is called an *allotetraploid*. The chromosome numbers in autopolyploids are given in reference to the genomic chromosome number represented by x . Thus, *I. trojana* is $2n=4x=48$. The $2n$ means that the haploid or gametic number of chromosomes is 24. The $4x$ indicates that the species is tetraploid with a genomic chromosome number of 12. Allopolyploids, unfortunately, cannot be so represented if there are genomes present with different chromosome numbers. The notation introduced by Werckmeister (1960) whereby the various polyploids are represented not by the total chromosome number but by the genomic numbers is a very convenient system and immediately indicates any

major fertility problems. In this notation *I. trojana* is $\begin{matrix} 12 & 12 \\ 12 & 12 \end{matrix}$; the triploid arilbred discussed earlier would be $\begin{matrix} 10 & & & \\ & 10 & & \\ & & 12 & \\ & & & 12 \end{matrix}$; a "lilliput" would be $\begin{matrix} 12 & 8 \\ 12 & 8 \end{matrix}$; *etc.*

The breeding behavior of autotetraploids can be quite different from that of allotetraploids. Unfortunately in irises there is a complete intergradation in types between the auto- and allotetraploids. Because of the complex background of most of the tall bearded varieties, a given variety may have four homologous representatives of one particular chromosome but have non-homologous representatives for other chromosomes. Thus, this plant will behave as an autotetraploid with respect to those chromosomes which have four homologs but behave as an allotetraploid with respect to those chromosomes which do not. The segregation of alleles at loci on the different types of chromosomes will be different, and the expected types and frequencies of offspring will similarly be different. Such behavior complicates the genetics of tall bearded irises immensely. Fortunately, we have some information on the tall bearded irises that indicates that many of the chromosomes behave as autotetraploids (Heinig and Randolph, 1963) in at least some respects. This does not remove all possible complications, but before going into examples of these complications, let us consider the origins and genetic behavior of more simple pure autotetraploids and allotetraploids.

An autotetraploid can arise in essentially only one way: the doubling of a diploid species. The way in which this doubling occurs is irrelevant to the behavior of this autotetraploid but deserves some discussion. A gamete may, through an error in meiosis, contain all the diploid number of chromosomes.

Should two such unreduced gametes unite, an autotetraploid would be the result. Alternatively, a cell in the plant can undergo a failure of mitosis such that the chromosomes double and fall apart but do not separate to form two new nuclei; instead, one, now autotetraploid, nucleus is formed. The drug colchicine doubles the chromosome number of a cell by interfering with mitosis in just this way. If this new cell proliferates and forms an entire plant, an autotetraploid is the result.

An allotetraploid can arise in several different ways. The spontaneous or colchicine-induced doubling of the chromosomes of a diploid interspecific hybrid will yield an allotetraploid. Similarly, the hybrid of two different autotetraploid species is an allotetraploid. An allotetraploid also results from the crossing of two different allotetraploids or an allotetraploid and an autotetraploid. An allotetraploid with 2 chromosome sets from one species and 2 chromosome sets from a different species, as could be produced in the first two ways mentioned above, is specifically called an *amphidiploid*. As this name indicates, such a plant behaves as a diploid of both kinds. At meiosis the two chromosome sets from one diploid species pair with each other as do the chromosome sets from the other species: each chromosome pairs with its homolog. Each gamete therefore contains one complete set of chromosomes from each species. Such tetraploids generally are quite fertile because meiosis is quite regular. On the other hand, the allotetraploid with as many as 4 sets of non-homologous chromosomes will be extremely sterile because meiosis cannot take place normally. Similarly an allotetraploid with two homologous sets of chromosomes and two other sets, neither homologous to each other nor to the first two, will be quite sterile. Even though the two homologous sets can pair and separate normally in meiosis, the other two sets, unable to pair, cause great unbalance in any gamete that may result.

Fertility and genetic behavior of allotetraploids becomes even more complex when one considers hybrids containing both homologous and homeologous chromosomes. During meiosis of such hybrids, some cells will have the normal pairing of two chromosomes, others the association of three chromosomes of a set of four, and still others the association of all four similar chromosomes as in an autotetraploid. The occurrence of each type of pairing would be a random phenomenon, and it would be impossible to predict the possible segregation ratios that might result. Conversely, a study of ratios of offspring would be largely futile. This pessimistic conclusion specifically applies to the modern tall-bearded hybrids.

In the previous article (Kidd, 1968) brief mention was made of the fact that the theoretically expected gamete probabilities from the autotetraploid $AAaa$ ($1/6 AA$, $4/6 Aa$, $1/6 aa$) was almost never obtained. If one assumes that the four homologous chromosomes randomly associate pairwise at meiosis and one follows the distribution of the four kinetochores, one finds that this ratio is expected. However, we have seen that exchanges of chromatid segments can occur between homologous paired chromosomes. If a locus is far enough from the kinetochore, the amount of exchange will mean that alleles at the locus will travel largely independently of the particular kinetochores to which they were originally attached. When paired in meiosis, the chromosomes have doubled, except for their kinetochores, so that each locus is actually represented eight times. In the theo-

retical autotetraploid the homologs pair randomly and each chromatid behaves independently with respect to exchanges with homologous chromatids. Thus, segregation for a locus far from the kinetochore essentially amounts to choosing two alleles for a gamete from a population of eight alleles, two copies of each of the four originally present, instead of from a population of only the original four alleles. For such a locus one would obtain from an $AAaa$ plant $3/14 AA$, $8/14 Aa$, and $3/14 aa$ gametes. The segregation at a locus more tightly linked to its kinetochore will yield gamete arrays with probabilities intermediate between those for the unlinked or distal loci and those for the very tightly linked or proximal loci. The exact segregation probabilities for a single locus in these tetraploids depend upon the position of the locus and hence cannot be given for any loci in irises.

This is quite a large departure from what occurred in a diploid, and the results can be even more spectacular when one considers a plant $AAAA$. If the locus is completely linked to the kinetochore, it is impossible to obtain an aa gamete. However, if the locus is so far from the kinetochore that it behaves independently, one finds $15/28 AA$, $12/28 Aa$, and $1/28 aa$ gametes! An autotetraploid of this type, $AAAA$, when crossed to an $aaaa$ plant will give no offspring with the recessive phenotype if the locus is very tightly linked to the kinetochore but can give around $1/28$ offspring with the recessive phenotype if the locus is very loosely linked to the kinetochore. With such small probabilities it is no surprise that determining ratios in tetraploids is virtually impossible, and in any case requires extremely large numbers of seedlings from a single cross.

The studies of Heinig and Randolph (1963) of the meiotic behavior of tetraploid iris species and tall bearded varieties indicate that behavior of the type expected for autotetraploids occurs for many and possibly most chromosomes. There is no certainty that such pairing occurs with all chromosomes of the genomes; indeed, large differences were observed among the various varieties studied. Nevertheless, it is possible to conclude that for most loci in the tetraploid hybrids derived from $n = 12$ species there is sufficient homology among the genomes to allow any allele to segregate and be recovered eventually in homozygous condition. Strictly speaking, of course, these plants are allotetraploids since different species are involved in their ancestry; the homology shown by the various $n = 12$ genomes appears, however, to be very great, and occasional *allosynapsis* (the pairing of chromosomes descended from different species) produces the observed segregation.

The segregation of alleles in allotetraploids is primarily determined by the way in which the homologous and homeologous chromosomes pair. We have just seen that the pairing of chromosomes in the tall bearded hybrids probably allows segregation to occur among all four alleles at a locus, similar to the expected behavior of an autotetraploid. The behavior of allotetraploids with distinct non-homologous genomes is quite different. The most regular of the allotetraploids with non-homologous genomes are the amphidiploids. Simonet (1934) described an excellent example of a new amphidiploid, *I. autosyndetica* Simonet ($2n = 46$ or $\begin{matrix} 11 & 12 \\ 11 & 12 \end{matrix}$) originating from *I. hoogiana* x *I. macrantha*. This new "species" is typical of true

amphidiploids in its very regular meiotic behavior, normally forming exactly 23 bivalents. This regularity is the result of strict *autosynapsis* (pairing of homologous chromosomes both of which are descended from the same species). In this case the two eleven chromosome *I. hoogiana* genomes pair as do the two twelve chromosome *I. macrantha* genomes. Thus, an amphidiploid's meiotic behavior is very regular, but its genetic behavior is quite different from that of both the diploids and the autotetraploids: there are four alleles at each locus, but segregation occurs only between pairs of alleles as in diploids. Each chromosome has only one homolog, and for this pair of chromosomes segregation occurs exactly as in diploids. However, the loci on this pair of chromosomes are also represented on other chromosomes: each locus is present on two separate chromosome pairs. If an allele at a given locus is included in a gamete, it is impossible for the allele on the homologous chromosome to be included too. If one considers the amphidiploid of genotype $EEee$, the segregation will be quite different if it is $E/e; E/e$ than if it is $E/E; e/e$. In the latter case it is homozygous (producing only one kind of gamete) and hence true-breeding while in the former case it is doubly heterozygous and will yield $1/4 EE$, $1/4 Ee$, $1/4 eE$, and $1/4 ee$ gametes; it behaves in this case exactly as though it were a diploid with duplicate loci controlling one characteristic, and indeed it could be considered as such.

The behavior of amphidiploids is particularly important in iris hybridizing since two major groups of hybrids behave essentially as amphidiploids. The "lilliputs" derived from tetraploid tall bearded \times *I. pumila* have been shown by Randolph and Heinig (1951) to regularly form 20 bivalents at meiosis—12 bivalents formed by the two tall bearded genomes and 8 bivalents formed by the two *I. pumila* genomes. It is generally believed that the 44 chromosome arilbreds introduced by Clarence G. White are of a similar nature with 12 pairs of tall bearded chromosomes and 10 pairs of aril chromosomes. Meiotic studies are needed to confirm this, but the evidence available is suggestive. Randolph (1964) has pointed out that the term *amphidiploid* cannot strictly be applied to the majority of arilbreds, and similar arguments would prevent its use for many lilliputs too. Nonetheless, all available evidence suggests that these two groups behave genetically the same as true amphidiploids. There is unfortunately no word that can be used to designate these hybrids; they are not amphidiploids, but they are amphidiploid-like.

In these amphidiploid-like hybrids the loci are duplicate, but behave as separate, independent diploid loci. This presents problems for the breeder since a recessive allele at a locus in one genome cannot have its phenotype manifest in the plant unless the same or similar allele occurs and becomes homozygous at the duplicate locus in the other genome. Among the amphidiploid-like arilbreds there are no plicatas, no tangerine pinks, and essentially no whites. All three of these will be difficult, if not impossible, to obtain since to the best of my knowledge the alleles necessary do not exist in the aril genome and hybridizers may be forced to wait for mutations to occur and be detected. In crosses involving the "lilliputs" these patterns have occurred, but sufficient cytogenetic studies have not been done to determine whether these indicate the presence of the appropriate alleles in both genomes or the occurrence of irregular segregation.

The assumption so far in this discussion has been that if a locus (defined primarily by function) exists in one iris species, the same locus, though possibly with distinct types of alleles, exists in all other iris species. While such an assumption simplifies genetic discussions and is probably generally valid, there are some cases in which it is definitely invalid. In the course of evolution, a non-essential locus may be lost entirely in some species. In other species, mutations at a locus may produce an entirely new function, sometimes at the expense of the old function, but more likely they would follow duplication of the old locus so that no loss of the original function is involved. Irrespective of mechanism, some loci may exist in only one or a few species, and other loci may be absent from one or a few species. Since flower color and pattern are non-essential characteristics of the plant, these irregularities may be most common among those characteristics of major interest to the hybridizer.

One clear example of a trait in some species which appears to have no corresponding genetic locus in other species is the signal spot of the dwarf and aril irises. In fact, we cannot as yet be sure that the genetic basis for this pattern is the same in the two groups. There is, however, tentative evidence in some arilbreds (Kidd, 1964) that the signal spot shows diploid inheritance, consistent with an amphidiploid-like behavior of the C. G. White arilbreds and the existence of the signal-spot locus only in the aril genome. It is distinctly possible that similar situations exist in the tall-bearded hybrids, but since in many cases the absence of a locus is genetically indistinguishable from the presence of a non-functioning allele at that locus, such occurrences will be difficult to demonstrate even when they do occur.

The 2x X 4x Cross

Triploids usually arise from a cross of a diploid by a tetraploid. It would be expected, *a priori*, that such crosses would yield full seed pods since both parents are balanced fertile types and that most if not all of the seeds would produce triploid seedlings. One finds however, that such is not the case. Diploid x tetraploid crosses are notoriously difficult to effect—many pollinations may yield very few pods, each with but a few misshapen seeds. The greatest surprise, however, is that when the resulting seedlings are examined, a high percentage of them are tetraploid (Simonet, 1963); the diploid parent has contributed an unreduced gamete.

A very similar situation has been found in several other plants (Marks, 1966; Wodell and Valentine, 1961; Hanneman and Peloquin, 1968). In potatoes especially there is a highly efficient triploid screen in the development of the seed. At some point after fertilization the endosperm or the entire ovule aborts in the triploids. This does not occur if the diploid parent has contributed an unreduced gamete. This selective screen against triploid embryos is very helpful to the hybridizer since the triploids would be largely sterile and could not be used for further hybridizing; the screen eliminates a large fraction of these "dead end" seedlings. In potatoes diploid x tetraploid crosses yield less than 1 seed per pollination, but 90% or more of the seedlings are tetraploid (Hanneman and Peloquin, 1967 and 1968). These results are more spectacular than in irises, but the evidence presented by Simonet (1963) convinces me that a similar phenomenon exists in irises: many tetraploids are known to have arisen from diploid x

tetraploid crosses, and in at least that one controlled study 40% of the offspring of such a cross were tetraploids.

In irises more examples of unreduced female gametes are known than of unreduced male gametes. The temptation is to consider this a reflection of a greater frequency of unreduced gametes occurring in the female, but this may not be the case. Only in those cases where the diploid parent is sterile because of non-homologous genomes, *e. g.*, William Mohr, is there a clear preference for the use of the diploid as female rather than male. In such cases a single unreduced pollen grain would be very difficult to recover and use to effect pollination, while an unreduced ovule will very likely be recovered if viable pollen is used in excess. The fact that William Mohr is mother to many more offspring than father more likely is the result of the hybridizers' ability to recover the unreduced gametes rather than the plant's differential production. Essentially, we don't know whether unreduced gametes occur more frequently on the female side or the male side. We do know that both can occur, but that in some cases it would be easier to recover an unreduced female gamete.

Many pollinations yielding few seeds makes this type of hybridizing difficult, slow, and often discouraging. However, the spectacular results obtained in tall bearded irises from unreduced diploid gametes in diploid x tetraploid crosses and interesting, if not yet quite so spectacular, results in arilbreds from unreduced gametes dramatically illustrate the advantages of such crosses. The novice, nevertheless, is not encouraged to pursue such a course unless endowed with considerable time and perseverance.

TETRAPLOID GENETICS

There are some aspects of tetraploids in general that make them more desirable horticultural material over diploids, and irises are no exception. American gardeners have long considered large size a desirable feature of almost any flower. There is currently a trend away from this over-emphasis on size, but the basic magnaphilia persists. Since the tetraploid nucleus is twice as large as the diploid nucleus, the cell which contains a tetraploid nucleus is almost always somewhat larger than that with only a diploid nucleus: the jump from diploid to tetraploid increases plant and flower size by slightly increasing the size of each cell.

Of more significance than mere size, however, is the greatly increased variability in tetraploids over diploids. In diploids there are only three possible genotypes at a locus with two types of alleles, six possible genotypes at a locus with three types of alleles. In tetraploids there are respectively five and fifteen possible genotypes. Since *complete* dominance of one character over another is not as common as it at first might appear, even in diploids, these different genotypes may, and frequently will, have slightly different phenotypic expression. This would frequently be referred to as a dosage effect, but it may not always follow a strict dosage relationship. It can generally be considered as "different genotype, different phenotype". It would be interesting to know how much of the variation observed in tetraploid plicatas is the result of there being at least 15 different genotypes at that locus and how much is due to modifying genes at other loci.

The iris hybridizer has been able to capitalize upon the variability of tetraploids to create the spectacular tall bearded garden varieties. This

PROBABILITY OF RECESSIVE PHENOTYPE

Types of Crosses	random chromosome pairing			selective pairing	
	minimum	maximum	with random allelic segregation	minimum	maximum
1. $AAAa \times AAAa$	0	1/576	1/784	0	0
2. $AAAa \times AAaa$	0	1/108	3/392 (1/131)	0	0
3. $AAAa \times Aaaa$	0	13/576 (1/44)	15/784 (1/52)	0	0
4. $AAAa \times aaaa$	0	1/24	1/28	0	0
5. $AAaa \times AAaa$	1/36	4/81 (1/20)	9/196 (1/22)	0	1/16
6. $AAaa \times Aaaa$	1/12	13/108 (1/8)	45/392 (1/9)	0	1/8
7. $AAaa \times aaaa$	1/6	2/9	3/14	0	1/4
8. $Aaaa \times Aaaa$	1/4	169/576 (10/34)	225/784 (10/35)	1/4	1/4
9. $Aaaa \times aaaa$	1/2	13/24	15/28	1/2	1/2

TABLE 1. The exact and approximate (in parentheses) probabilities of recovering the recessive phenotype, *i.e.*, the genotype *aaaa*, from various types of tetraploid crosses under various specific assumptions. Random allelic segregation is discussed in the text and is therefore listed in the table for completeness. As explained in the text, neither the exact type of chromosome pairing nor the positions of the various loci are known, and therefore it seems advisable to use only the minimum values, or values close to the minimum, as working estimates.

variation, however, occurs at the expense of predictable genetic behavior. Most of the complicated genetic behavior of tetraploids has been discussed in conjunction with the cytogenetics of tetraploids. In summary, the segregation ratios, or more precisely the gamete types and associated probabilities, are determined by three parameters in tetraploids: the genotype, the position of the locus on the chromosome, and the pairing relationships of the chromosomes. In diploids only the first, genotype, is involved. While the genotype of a plant may be predicted from its parentage and phenotype, in tetraploids there is no way to estimate the second two parameters before offspring are raised, and even working backwards from the observed segregation ratios, the contributions of these two parameters will be confounded. Therefore, Table 1 has been prepared as an aid in prediction for the hybridizer. It will be noted that this table differs in many respects from

a similar table on p. 338 of *Garden Irises* (Randolph, Editor, 1959), and these differences need explanation.

Values in Table 1 are given as probabilities rather than ratios. As explained in the previous article of this series (Kidd, 1968), the use of probabilities is preferable to ratios in that probabilities can be easily combined and used to determine the number of seedlings that should be raised from a cross. The values given under "Random Chromosome Pairing" correspond to those expected for loci near the kinetochore (minimum) and loci far from the kinetochore (maximum). Since the maximum probability is not obtained under the strictly random allelic selection discussed earlier but occurs through more complicated behavior, an additional column gives the probabilities produced by random allelic segregation. As you can see, it is a value close to the maximum. Under "Selective Pairing" the maximum values correspond to the ratios given in *Garden Irises*. It is possible to have selective pairings that will not give these ratios, and the values for this alternative behavior are given in the "minimum" column. Ignoring the selective pairing for the moment, almost all actual values will be somewhere between the maximum and minimum, but the values are not yet known for any locus in tetraploid irises. In fact, because the chromosome pairing may be different in even full sibs, the exact value even if known for one variety would not necessarily be valid for any other clone. It is therefore best to use the minimum estimates where possible: it is psychologically more rewarding to underestimate the likelihood of an event and be surprised by its occurrence than to overestimate its likelihood and be disappointed by its not occurring.

For an illustration in the use of this table, consider the cross Stepping Out X Whole Cloth. The assumption will be made that Whole Cloth has no pl or pl^a alleles and has only one dominant inhibitor allele, I_s (Inhibitor of anthocyanins in the standards). Approximately half of the seedlings will show the effect of the inhibitor, and all of the seedlings should be $Pl Pl pl pl$ (self colored) at the plicata locus. Selecting two seedlings that also have the inhibitor allele and crossing them, what is the probability of getting an amoena-plicata seedling? Since the two loci are independent, the probabilities of the various seedling types produced by each will be independent and can be multiplied. First the probability of no inhibitor (the recessive phenotype) is obtained from the table for an $Aaaa \times Aaaa$ cross. We take the largest value from the table since we are concerned actually with the presence of inhibitor (the dominant phenotype) and wish the smallest value for this. Thus, the maximum probability for no inhibitor is $10/34$; so the minimum probability for the presence of at least one dose of inhibitor is $1 - 10/34 = 12/17$. Now find the probability for plicatas from an $AAaa \times AAaa$ cross. This is at least $9/196$, the smallest value in this row. The minimum probability for an amoena-plicata is therefore $9/196 \times 12/17 = 108/3332 = 1/31$ (approximately). The table in the previous paper of this series (Kidd, 1968) indicates that approximately 90 seedlings must be raised to be 95% sure of obtaining at least one amoena-plicata from this cross. Since all probability estimates were minimal, the confidence of success (of obtaining an amoena-plicata) is probably larger than 95%, or conversely, slightly fewer than 90 seedlings will be required to be 95% sure of success.

Examples are usually interesting; so let's go through another. A second way to get an amoena-plicata would be to cross Diplomacy with Ribbon Round. For the inhibitor this is a cross of type 9 and for plicata pattern it is of type 7. The minimum respective probabilities are $11/24$ and $1/6$. The minimum probability for an amoena-plicata from this cross is $11/24 \times 1/6 = 11/144$, which requires approximately 37 seedlings for 95% confidence of success. This is a more efficient way to get an amoena-plicata—compare 37 seedlings with 90.

As a final example, let us try for a tangerine-bearded blue plicata. We must start with a yellow-bearded blue plicata and a tangerine pink, e.g., Ribbon Round and Esther Fay. The first generation hybrids from such a cross would be expected to be muddy—both yellow pigment and blue pigment—selfs with yellow beards. Yellow-bearded blue selfs might occur as might yellow selfs. These latter would have the dominant anthocyanin inhibitor and should not be used in this breeding program. Intercrossing two of the yellow-bearded blues will involve segregation for only two independent characteristics: tangerine pink beard and plicata pattern. Both would be crosses of type 5 with minimum probabilities of $1/36$. Therefore, the probability of a tangerine-bearded blue plicata in the F_2 is $1/36 \times 1/36 = 1/1296$. To be 95% confident of finding such a seedling over 3000 seedlings must be grown. No wonder there are so few! They would be even less likely to occur if the muddy selfs were intercrossed; then it would be necessary to get rid of the yellow-pink pigment on the petals, and that involves segregation at a third locus.

CONCLUSION

The hybridizer with limited resources (time, space, money) will find cytogenetics useful primarily in indicating the types of crosses that will be plagued with infertility and hence best avoided. The hybridizer working with tall bearded irises or tetraploid dwarfs will find tetraploid genetics helpful only in the estimation of the unlikelihood of obtaining any given type of plant. There are no Mendelian ratios in tetraploids and no ways to assign specific probabilities to any particular genotype. This is, of course, discouraging, but the probability approach presented in this and the previous article can be very helpful in reducing effort wasted by raising too few seedlings of a given cross. Other than this, and particularly with characteristics of unknown genetic basis, the "what the hell, let's try it and see" approach is probably as good as any. Hybridizers involved in cytogenetically complex breeding programs will hopefully find this article a sufficient background in the subject for them to obtain maximum benefit from the excellent cytogenetic research done in irises. For all hybridizers the chromosome counts and karyotypes summarized in *Garden Irises* are an invaluable aid.

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Note: On page 97, July 1969 *Bulletin*, change the first 95% under "Number of Seedlings: Confidence" to 90%.



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AT THE SPECIES LEVEL

Are Species Irises Just Curios

To most gardeners and AIS members, the word iris connotes a vision of beauty at least a yard tall, probably in a clump of several stalks each bearing a succession of glorious over-six-inch blossoms in a varied array of hue; in short, a tall bearded beauty. Recently, these lesser and earlier bearded relatives have come into new forms and colors and with consequent new appeal. Tucked away in various corners in the gardens where this spectacle of late spring and early summer becomes an annual highlight might be found some of the "lesser" members of the Iris Court, the yellow and blue water-irises, Siberians and spurias in the mixed borders, perhaps clumps of *I. cristata* running about in the sun-dappled woodland or shrubbery, and spectacular Japanese in the acid bed.

A fact often overlooked by most gardeners is the comparative ease with which these less important members may be grown if their simple wants are satisfied; they grow unattended when happily situated, most of them to be readily shared with gardener-friends, and they fit easily into the useful landscape uses in the garden picture. It is this unbelievable "easiness" that makes these irises almost foreign to the average irisarian who just cannot get used to the idea of planting an iris among his other garden plants and forgetting it, letting it fend for itself.

There are some species of irises for almost every exposure in the garden; all but a few are sun-loving and will not flower in shade. Only the red-seeded *I. foetidissima* is really successful in heavy shade, where its clumps of foliage come to a polished evergreen perfection of deep green, unlike the pallid yellowish aspect when grown in sun. In a light soil in sun, the bulb species give a performance requiring little attention except thinning out the increase. In wet soil, not a soggy bog, but where the moisture is moving through, such as *Ii. setosa*, *virginica*, *kaempferi* and the Hexagonae, or Louisiana species, are naturally suited. *Ii. longipetala* and *missouriensis* need much moisture in growing season, but must bake and ripen in late summer, as must *I. ensata* and the spurias, if they are to be permanent; while *Ii. versicolor*, *pseudacorus* and *laevigata* will grow in shallow water, only asking that the water level recede in summer to expose the rhizomes. The Sibiricae are meadow plants and must never lack for deep moisture, as also for *I. prismatica*; they must never really bake. The bearded species are tolerant of the general garden aspect, and demand good soil drainage and sun; likewise the Pacific Coast species of Californicae, though many are not winter hardy in most severe climates. In the acid-bed, accompaniments to such things as *Kalmia* and azaleas, *I. verna* is a lowbordering prospect, with the taller *I. kaempferi* and such of the Californicae as *Ii. douglasiana* and *innominata*.

In the rock garden most of the smaller ones find a setting amidst complementary companions that set them off, though they will be swamped by invasive mat-forming neighbors; no iris will survive being swamped. The earliest spring show of *reticulata* leads off, to give way to *Ii. pumila*, *chamaeiris*, *ruthenica* and *innominata* and the shortest of the Siberians, which close the season unless the taller *I. dichotoma* can be fitted in; and the remontant developments of the bearded sorts of dwarfs bring late sum-

mer and autumn blossoms. Those climates mild enough for *I. unguicularis* to be successful will find the garden colored and scented by these many-hued irises.

Study Group Publication

As the Study Group is completing its first season of publications, time to renew all one-year subscriptions falls due. Three issues of SIGNA and the introductory portion of the *Species Study Manual* have been sent out. A bonus, constituting a replacement for one issue of SIGNA, was the inclusion of the Cohen monograph on the Pacific Coast irises with the first season's subscription. These now are all offered for sale separately. The newsletter SIGNA is 50¢ each (specify which issue, #1, 2 or 3); or all three for \$1.00. The Cohen monograph and *Study Manual* are \$1.00 each. Membership-subscription is \$2.00 per annum or three years for \$5.00. Checks payable to AIS Species Study Group; mail to E. Freeman Yendall, 24 Irving Terrace, Kenmore, New York 14223?

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Glenn Timbs

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Sanborn, N. Y. 14132

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1969 INTRODUCTIONS

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All three irises above\$60.00

1969 INTRODUCTION

NIGHT TIME—Sdlg. 268. (IO557 X Sable Robe).\$20.00
 A rich satiny black with self beard. Stylearms are a vivid petunia violet; flowers are lightly ruffled. Very thrifty grower, and free blooming. We consider this the darkest of all the irises we have introduced. E-M. 25". BB. HC 1968.

PREVIOUS INTRODUCTIONS

MISS TEENAGE—BB.\$7.50
 Bright pink with self beard.

SPACE MASTER—\$15.00
 Standards yellow; falls blue-violet.

AZURE DOME—\$15.00
 An imbricata hybrid. Standards violet-blue; falls near white.

RADIANT DAWN—\$15.00
 Standards pale yellow; falls phlox pink.

RING BEARER—MTB.\$3.00
 Pink with tangerine beard.

August shipment. No catalog.

MRS. PAUL H. COOK

R.R. 4 Bluffton, Indiana 46714

"HAPPENINGS" AMONGST THE SPURIAS

Eleanor McCown

In 1968 three spurias were introduced by three different hybridizers which may be said to have new form. The falls are short-clawed, but wide and nicely rounded, and the standards too are shorter and very wide. Both standards and falls are flaring, giving the flower a compact rounded form. WOODWIND (Hager) is a rich caramel brown with a brighter signal. ONE REASON (Ferguson) is a lavender-blue and white, and HIGHLINE LAVENDER (McCown) is a rosy lavender with a light yellow signal.



HIGHLINE LAVENDER
(McCown '68)

Marion Walker, of course, led the way with his very popular MORN-INGTIDE and the much newer FIRST VOYAGE, ANACAPA and STABILITY. All of these have wide standards and falls, with some ruffling and good form.

Strides have been made also in new colors and combinations of colors. Tell Muhlestein started the ball rolling toward a red spuria with his small-flowered RED STEP, orchid brown with a hint of red. Walker Ferguson recently introduced two that took giant strides to red. FIRE-PLACE, a dark purple with red highlights, is a flower of good form and size. RED OAK, a deep maroon-red, is a medium sized flower of good form. IMPERIAL BURGUNDY (McCown) also could be called a deep maroon-red of a little different shade. The standards and falls are quite narrow but long, giving

the flower a spidery effect.

While many spurias are called blue, all have a lavender hue. Mr. Ferguson's 1968 introduction LANDSCAPE BLUE comes the closest to a true blue, and is especially lovely when in full bloom. Another Ferguson introduction, PURPLE KNIGHT, is a deep velvety purple with a small yellow signal. Large-flowered, it has the orchid form so popular with arrangers.

Favorite spurias among irisarians have been the browns, such as CHEROKEE CHIEF and DRIFTWOOD. Mr. Walker's newer introductions, CHUMASCH CHIEF and INDIAN PUEBLO, are additions that should become popular. CHUMASCH CHIEF is a deep chocolate and INDIAN PUEBLO is a rich coppery brown with distinct venation and wide standards and falls. Also in the brown category is Mr. Ferguson's DARK AND HANDSOME. This one always catches the eye with its intense coloring.

Only amongst the yellow spurias can any clone be called a true self. Mr. Ferguson's QUIET CREAM is a true self, nicely formed, that could be classed as an off-white. STABILITY (Walker) is a light yellow with the same lovely form as MORNINGTIDE. YELLOW WINGS (Ferguson) is a little deeper yellow in color, with good ruffling.

Approaching an orange shade is the new Eric Nies Trophy winner, ELIXER, developed by Mr. Hager. This is the result of backcrossing to a species "Turkey Yellow." It is a vigorous grower, with medium size flowers and exceptionally good branching. INTENSITY (Ferguson '68) is an offspring of ELIXIR, with the same deep yellow-orange color and a larger flower.

Bicolors and plicatas also are beginning to appear among the newer clones. Mr. Ferguson's introduction of CONTRADICTION, with orchid-brown standards and yellow falls bordered brown, and MOON-BY-DAY, with orchid-blue standards and off-white falls faintly lined with blue, were the first breaks toward a bicolor. In 1965 his DAWN CASTLE won the "best seedling" award in San Diego, and is a distinct bicolor, with off-white standards and light yellow falls deepening to orange in the signal. The flower is nicely ruffled and flaring.

As for plicatas, Mr. Ferguson's ALLEGORY has ruffled lavender-blue standards and clean yellow falls with a distinct narrow border of ruffled blue; and his ARBITRATOR is truly startling with a blend of lavender-purple and bright yellow, and the falls having a bright purple border.

Improvements in flower substance also have arrived. Most of the newer introductions have much better texture than their forebears. Possibly the heaviest substance can be found in IMPERIAL SONG (McCown), a large flower with white standards and orange falls bordered white. Two other similarly colored flowers are more bountiful in their blooming habits. They are Ferguson's very popular WINDFALL and Walker's lovely ruffled LYDIA JANE.

Possibly the largest flowered spuria to date is Ferguson's FAIRFIELD, with standards over two inches wide and falls upwards to three inches, and yet a compact rounded flower. This clone also has proved to be a bountiful bloomer. Its only shortcoming, in some judges' eyes, is the pale blue coloring, which has a tendency to fade.

Some spurias defy classification as to color. Old timers ZEPHROSO and TWO OPALS are in this category. Recently Hager introduced CONNOISSEUR with a coppery-yellow coloring tinged lavender that under artificial light takes on added luster. This also is a large flowered, wide petaled clone.

While all of these newer clones give the iris grower a wide range to choose from in the spurias, there still are many blank spaces to be filled. An all-white has not yet arrived, and most of the newer seedlings in this category with only faint yellow markings on the falls have either proved to be poor growers or have had flowers of poor form. Old WHITE HERON and newer WAKE ROBIN still are the best "whites." No approach to a pink spuria has been made; here the field is wide open. Another very blank space that will not soon be filled is a reblooming spuria. Under favorable conditions PREMIER has been known to produce a second bloom immediately after the first flowering, and some older varieties occasionally

have thrown a late blooming stalk or two, but a true rebloomer is a long way off.

Although many spuria species are quite dwarf, most of the hybrids are tall growers. The average height of most spuria clones is four feet, and some have been known to reach six feet. A few are around three feet. This leaves a blank space to be filled. Most hybridizers also tend to work for larger flowers, but in the garden and for arrangements there is a great deal of room for smaller flowered clones. CANARY CAPRICE (McCown) is a newer introduction with small well-rounded compact flowers of white and yellow. It grows, however, anywhere from three to four feet in height.

So, Pollen-daubers, get busy, and in two or three years, when those seedlings bloom, there will be more "Happenings", and maybe some of these blank spaces will be filled.

THE GERMINATION OF SPURIA IRIS SEED

Walker Ferguson

The growing of spuria irises from seed is done in a variety of ways and with somewhat varying results. Marion Walker finds that they grow readily, and some others report nearly 100% germination. But for me it seems to be a different story. On the average 25% of the crosses will show no germination the first year, but may come up the next year; and often only a few seeds from a number planted may germinate. I remember once that a certain cross came well, but the reverse cross did not sprout a single seed until the following year.

Probably here in California, most of the seed is planted in open ground in seed beds or rows, where the plants are left until blooming time. Some growers transplant the first spring, others in the fall. A few may plant in regular flats, which are easy to care for, but are much too shallow unless the seedlings are transplanted when very small. Roots of six-inch plants may be a foot long.

After a dozen years of trial and error, the method I use is to plant the seed green—that is directly from the opening seed pods, in gallon cans filled with a mixture of soil, sand and peat. The cans may be set in a shady place or be covered with heavy cardboard, to conserve moisture. The seed is planted less than an inch deep. If they are planted in the open ground with our hot dry fall days, it would call for a lot of careful sprinkling, even twice a day at times, to maintain moisture. Cans will do with watering once a week. Then there is the weeding problem, which in cans is no problem at all, but in open rows can be quite difficult, at least for a man of my years. If there is no germination the first year, the cans can be set aside in a safe place; but in open rows the seeds may be scattered in the process of weeding through a year's time.

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Kaempferi Irises In The Midwest

C. A. Swearingen



ORIENTAL TRACERY (HM '68)
Swearingen '67

The intent of this article is to show the history, growth and improvement of *I. kaempferi*, more commonly called the Japanese iris, particularly between the Rocky Mountains and the Appalachian Range.

Little exists in the form of records of the early days from the time that Siebold's importations from Japan first flowered in Verschaffelt's garden in Ghent in 1857. It is known that the Van Houttes and a few others did work with them, and imported a few more. It appears that it was from these sources that Lemaire named and described what appears to have been garden varieties, rather than the true species. It was not until 1864 that Regel, under the erroneous name of *I. laevigata*, described what appeared to be the true species.

A colored lithograph of four of Siebold's introductions shows the simple forms that then existed, and, except for color, are little better than species plants. These plants were renamed, as were most of those which followed. This started the vicious cycle of two or more names for each variety that caused much confusion through the years. We have a color print of nineteen of these varieties, which we believe is the oldest such record in the country of these varieties.

The oldest known record of importation into the United States is that of Thomas Hogg in 1869. Probably the first commercial offering of plants was by John Lewis Childs in 1895. By 1942 this concern listed 400 plants, but due to the confusion of names, this probably represented little more than half that number, in addition to those of their own origin.

We have a copy of the 1920 Child's catalog, and the irises shown on the cover show considerable improvement in flower form. Shown are GOLD BOUND, MT. HOOD, T. S. WARE, PYRAMID and TEMPLETON. These probably still exist in keepsake gardens around the country. GOLD BOUND is in my old planting.

Another grower and hybridizer was Bertram Farr, whose first catalog was issued in 1908. His 1920 catalog stated, "Many years ago a collection of Japanese irises, said to duplicate those in the garden of the Mikado, was brought to this country. It contained many that have not been improved upon by later importations." These probably were some of the better ones that Matsudaria had grown. He also "worked over" his plant list to the end that descriptions and names were not in conflict. He complained

that only collections could be had from Japan and that orders by name were not filled. Others listing stock were Robert Wyman, listing 85 varieties in 1939, about half of which were American varieties; Fairmount Gardens, 153 in 1939, with only 15 having Japanese names; Joseph Martin, 71, several new ones, in 1941; and Flowerfield, formerly Childs, reduced their number to 239 in 1941, and many of these were their own introductions. F. B. Meade, then an AIS Director, in 1928 imported 20 of the finest then offered by the Yokohama Nursery, and did work with them. Some of this group are the parents of some of the finer plants in commerce today. Included in this group were AI FUKURIN, AKA FUKURIN, KONGO SAN, OSA-MARU-MIYO, SHIRINAMI, NISHIKA YAMA, SUKURA GAWA and HINODE SUKRA. Hobbs Nursery stocked plants in the early 1900's, listing "standard varieties."

W. A. Payne, in 1925, bought four plants from Hobbs, including MAHOGANY and UCHU, and in 1928 ten from Flowerfield and in 1931 six from Meade. These and four from other sources became the parent plants of over 100,000 seedlings in the succeeding years, from which he introduced some 170 varieties in his some thirty-five years of hybridizing. This is the "All-American Strain" and bases on what is known as the Edo variety in Japan. Except in a very few of the later introductions, there is no Higo bloodlines.

Several others in the Midwest are working toward improvement. In this group are several who are prominent in other groups, including the tall. They may be expected to add several good new ones each year, and the few who have worked with them for several years will have a few more each year. But more hybridizers are needed to continue the progress that has marked the last several years. At the present time there is ample parent stock of excellent quality available. It should not be allowed to die without use.

An enormous amount of study and record keeping in connection with the development of present varieties has led to an extremely high quality in present offerings in the Midwest. One can hardly believe, when seeing the plants that Siebold imported alongside our present high quality varieties, that they are the same species. The improvement in form, size, substance, height and branching is astonishing. Height has increased from 18" to an average of 36" to 48", branching to where seven buds no longer is unusual, 7" to 9" bloom is normal and, without disbudding, 12" is more than common.

Your author maintains a large planting of the "old ones" for comparison purposes, and the garden is open to all visitors. Do not settle for less than the best. They cost no more than the "cheap" kinds, and you have more pleasure with less work. And set a few pods, grow some of your own, and know the feeling of pride that comes with accomplishment.

MILWAUKEE 1969

NEW YORK 1970

WICHITA 1971

Japanese Irises In The West

Ben R. Hager



ENCHANTING MELODY
(Rich '67)

As early as the 1920's, importers were bringing a number of Japanese irises into this country, especially into the western states. Rholin Cooley and later Walter Marx were among these early importers. Some of these early imports, although seldom listed in commercial catalogs now, are KARAHASHI, HISIKATA (also known as Beauty of Yamamoto), KONGO SAN, NISHIKI GI, OSAMARU MIYO, AKA FUKERIN, and still one of the greatest of Japanese irises, MIYUKI GURUMA, are holding their own with more recent developments and are being used in breeding with notable success.

Walter Marx, one of the pioneers in breeding Japanese irises in this country, began using the Higo strain, brought over from Japan. He found that the varieties mentioned

above to be his most productive parents. For commercial reasons, he gave his group of seedlings the title *Marhigo*, since they were based on and resembled the Higo strain. His wide use of advertising and colorful catalogs brought to these irises the fame they deserved among the gardeners of the country; but unfortunately it takes more of a "specialist" to grow them in a manner that will display their singular and impressive beauty, and they never have attained the prominence of the bearded irises.

Mr. Marx introduced many varieties which won awards, both in this country and in Europe. Some of the most popular are SUMMER STORM, WORLD'S DELIGHT, SNOWY HILLS (to me still the best white in wide distribution) and my favorite, VAIN VICTOR.

The Marx Gardens also distributed seed, from which such varieties as FRINGED CLOUD, MY HEAVENLY DREAM and WORLEY PINK were introduced.

Working alone with a starter collection of imports and early Marx varieties, Fred Maddocks interbred his irises and kept careful records for about twenty years. When he did not find anyone but himself much interested in his seedlings, he threw away his records, but continued to grow his favorites. It was shortly after this that Jonnye Rich discovered his garden and introduced it to other irisarians. About the same time iris enthusiasts were broadening their interests, and Mr. Maddocks suddenly found himself with quite a charisma of local fame. Selections were made among his seedlings and these were introduced. These have won many awards, among which was the second Payne Award for his mallow pink

LEAVE ME SIGHING. Mr. Maddocks thus found renewed interest in the breeding of Japanese irises, and is back to keeping records of his crosses. Some of the favorites from this breeder are **EVENING EPISODE**, **GEISHA GOWN**, **GEISHA PARASOL**, **TIME AND TIDE** and **BANNERS ON PARADE**.

Meantime, Jonnye and Rex Rich were growing Japanese irises and had a few generations of seedlings of good quality. So about the time the Maddocks' varieties were introduced, some of the Rich irises also were catalogued. Chief among these was **STAR AT MIDNIGHT**. Later their pink **ENCHANTING MELODY** also was introduced, and there are more to come. **WALK IN BEAUTY**, a beautiful lavender self, will be introduced this year.

The popularity of Japanese irises is spreading southward, and Southern California gardeners again are trying their hand at growing them. In a land where artificial irrigation is essential, the quality of the available water is important. Southern California water usually is quite alkaline and full of soluble salts, both of which Japanese irises resent, so there is great difficulty in growing these irises in this area. But never tell a true gardener that he can't do something; he will do his "durndest" to do it. And so it is with these gardeners of the south. Interest is centering around San Diego, and that is appropriate, for it set the stage for the arrival of W. A. Payne, who now is making his home there. This is the Mr. Payne of Japanese iris fame, and for whom the top Japanese iris award is named. It is to be hoped that these enthusiasts will carry their zeal into hybridizing, since it has been fairly well established that Japanese irises can, through selective breeding, be induced to develop a certain amount of tolerance for alkalinity. The **CARE** strain in Germany has pointed in this direction; and Jennie and Russell Hopson showed in their breeding that Japanese irises brought in from other areas and which did not do well in their garden, would produce seedlings that with selection did do well in their garden.

We are growing and have bloomed about 60 varieties which are selections of the current work being done in Japan by the leading breeders. Jack Craig was responsible for the choices and for importing this group, and was generous enough to make them available to us. We thus have the interesting experience of growing these imports side by side with varieties developed in this country. Some of the imports are very exciting; others do not do well in our climate. Overall, we would judge that neither side of the Pacific has a corner on the best. Considering, or perhaps ignoring, the different approach to judging standards, the development is about equal on both sides. The greatest fault with some of the flowers from Japan is a lack of substance, which is due to the local condition of cooler climate during their bloom period. We must have more rugged substance to withstand the heat which often accompanies our bloom.

Some of the varieties we especially liked are **RUBI OGI** (white ground, widely banded violet-blue), **HEKI TO** (cobalt violet with blue veins), **NARI HIRA** (huge red-purple self), **SHIKI NO HAJIME** (our favorite single, with overlapping petals in light lavender), **NESSANO MAI** (white ground edged wine purple), **YORU NO SUIREI** (beautifully formed flowers in red-purple, and an older one with a startling effect), **TOGA SODE** or Geisha Sleeve, a gaudy fuchsia boldly veined in white.

IN MEMORIAM

STEDMAN BUTTRICK

Stedman Buttrick has gone from among us, but he has left to us a trail of rich memories. His estate, overlooking historically hallowed ground, and often photographed and written about in flower and other magazines and in color catalogues, was a mecca for iris and hemerocallis growers. None who attended the 1953 convention ever will forget the buffet luncheon served on the spacious and pleasant setting of the Buttrick estate. The national government now has this estate as a memorial of America's founding days, for it was over this land that the Minutemen marched to defend Concord Bridge.

Only this last year Mr. Buttrick's CUP RACE had tied for the Franklin Cook Memorial Cup at the Berkeley meeting. He was a member of the Board of Directors of AIS from the middle of 1953 to the end of 1956.

HUBERT STAMP

Hubert Stamp, widely known to iris and hemerocallis growers of the middlewest, and who was to be inducted as president of the Greater Omaha Iris Society in March, passed away on January 31, after a month's illness.

TOM CRAIG

Tom Craig, one of the truly greats of the iris world and in the world of art, passed away in February. His contributions in these areas are too vast to be covered adequately in an article assembled as the last copy goes to the printer, and an article on Tom Craig, the man and his accomplishments, will follow in a later **Bulletin**.

EDWARD ROBINSON

As we go to press, we belatedly learned of the death of Mr. Edward Robinson on July 29, after a short illness. Mr. Robinson was a much-beloved member of the Michigan Tri-County Iris Society, and he leaves with his friends a rich memory. He was the husband of Beulah Robinson, the Michigan Director.

DR. WILLIAM J. JOHNSON

Dr. William J. Johnson, an AIS member for some thirty-five years, and the pioneer of iris enthusiasts in Arizona, died January 21, at the age of seventy-five. He had been very active in iris circles in Phoenix, and was one of the early experts on spuria irises.

CONRAD EGGLE

Conrad Eggle, husband of Aletha Eggle of iris artifact and antique fame, passed away on January 17. He was a collector of good iris varieties, with over 1,000 in his garden. He joined CVIS when it was six months old, and missed only one meeting.

ROBIN PROGRAM FLIGHT CONTROL

Robin Program Committee: Peggy Burke Grey, Chm., 8191 Franz Valley Rd., Calistoga, California 94515; Barbara Serdynski, Lillian Terrell, Carol Ramsey, Roberta Torrey, John Bartholomew.

Robin Divisions

Iris in General: Carol Ramsey, Chm.

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Reblooming Irises: Edwin Rundlett, Chm.

General Hybridizing: Lillian & Collie Terrell, Co-Chm.

Advanced Hybridizing: Wilma Vallette, Chm.

Regional Robins: Edith Smith, Chm.; **Regional Reps:** Hazel Bartholomew (1), Margaret Dunbar (2), Charlotte Hankins (3), Helen & Ralph Lewis (4), Eula Dillery (6), Phil William (7), Edith Cleaves (14), Mary Herd (17), Gerry Smith (18), Ethel Weber (20), Fred Spahn (21), Edith Smith (22).

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Aril-Arilbred: Lee Kohler, Chm.

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Standard Dwarfs: Mildred Brizendine, Chm.

Intermediates: Wilma Greenlee, Chm.

Miniature Tall Bearded: Jean Witt, Chm.

Border Bearded: MayBelle Wright, Chm.

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Japanese Irises: Bob Swearngen, Chm.

Siberian Irises: Francis Brenner, Chm.

Spuria Irises: Ila Nunn, Chm.

Young Irisarians: Iris Smith, Chm.

Historical Irises (Research & Conservation): Hariett Segesseman, Chm., Gerta Beach, Eula Shields, Everett Randles.

Antique-Artifact Collectors: Aleta Eggle, Chm.

Iris Arranger-Designers: Mildred Johnson, Chm.

Come Fly With Us!

To join a Robin in any division, send your name and address to the **Robin Program Chairman** (address above). State which division (s) you'd like to join. Give your iris experience (novice, average, advanced) and a brief introduction of yourself and your iris interests so you'll be placed in a congenial group.

Robin rules are simple: About 10 people participate in each Robin. The Robin travels person-to-person on a specified route. You can hold the Robin for only a specified time (about 5 to 7 days) to read the letters and write your own. You must send a courtesy postcard back to the Robin Director when you forward the Robin to the next member.

FLIGHT LINES

ROBIN BREAKFAST

Thursday, June 5. Write now to reserve your perch at the **Breakfast Table**. Send a note to Mrs. Peter J. Baukus, 10415 W. Montana, West Allis, Wis. 53227. Let her know also if you'd like a **Robin smorgasbord dinner** on Thursday or Friday evening. Either or both can be arranged if she knows in advance how many to plan for.

A ROBIN FLY-IN FOR MILWAUKEE

Advance plans promise a most interesting robin get-together at Milwaukee. **Mrs. Peter J. (Ethel) Baukus**, President of the Wisconsin Iris Society, is our Robin Hostess! She is one of our finest robin directors, and we are pleased as punch that she recently was named outstanding gardener of the year of the Milwaukee region by the Garden Clubs of Wisconsin! Her garden will be on tour for the AIS convention. Ethel asks all convention-bound robin members to state, when they send in their convention registrations, that they are robin members, and specify which robins they belong to. This will help considerably in pre-convention registration and to speed up arrival at the robin's nest, a special assembly room provided by convention chairman, Clarence Protzmann. Wednesday, June 4, is set aside for AIS Section meetings. Registration for both the convention and the robin members begins at 8 a.m. "If there's enough interest," Ethel says, "we may have a robin dinner at a small additional charge. We would like slides of robin members' seedlings to show at our meeting. If each robin sent 5 slides, imagine the viewing we'd have! Slides of artistic arrangements featuring irises would interest many of us who grow and show our favorite blooms. We also are looking for robin members to act as hosts in our robin nest. Please let me know the time you prefer to meet and greet the other birds who come to roost!"

Irene Harper Silfies

Very sad indeed were we to lose Irene to very critical illness. Her job as General Hybridizing division chairman was just getting under way. She had marvelous plans for enlarging and improving the robins, and she had outlined them sufficiently that hopefully we can follow them through. Lillian and Collie Terrell have returned to chair the division. Lillian is making a remarkable recovery from eye surgery just after Christmas.

What's New Around Here

Dorothy Dennis and the Dwarfs: Former RVP of Region 19, long-time dwarf and median specialist, breeder of DALE DENNIS, first dwarf plic directly from CRETICA (and named for her daughter), now gardening in Hot Springs, Ark. She's our new chairman for Miniature Dwarf robins!! . . . **Pink Amoenas, Anyone?** A new hybridizing robin is already aloft, Bonnie Bowers, Roseville, Calif., directing; apply with speed if you have some experience and know late varieties; several master hybridizers are contributing letters describing progress in this color group . . . **Horns, Spoons and Flounces** come in for close scrutiny in the new Space Age Robin started by young irisarians Phil Williams and Henry Rowland; Mrs. Lloyd (Gladys) Austin and Dr. Lloyd Zurbrigg are participating, so hurry if you

want aboard! . . . **Leading Louisiana iris authorities** have signed up for the robin Lorena Reid, Springfield, Ore., will direct about these beauties; Mrs. Ira Nelson, Ila Nunn, Dean Lee, and others offer the chance of a lifetime to study a class that's zooming in popularity! . . . **New division directors for TB robins**; three of them, Margaret Finch, Nardin, Okla., Georgia Legner, Rochester, Ill., Ronald Mullin, Pawnee, Okla. Each rides herd on a flock of about 10 birds . . . **Some vacancies** still in the new Aril-Arilbred, Iris Designer-Arrangers, Iris Antique-Artifact Collectors flights, and we're looking for more North American participants for our new International robins. **Remember, all applications for all robins come to the Robin Program Chairman.**

In the works: A complete listing of all Robin Program officers from division chairmen to robin directors and reporters, to supplement the Flight Control listing in this issue of Flight Lines . . . New guidelines to aid robin reporters, now being prepared by Roberta Torrey . . . Detailed clarification of the Regional Robin Rep job, with operational guidelines; Edith Smith's working on it . . . A new program for Regional robin reporters to feed both FL and the many Regional publications, also designed by Edith Smith . . . A revised and updated brochure for new AIS members, describing the Robin Program . . . For General Hybridizing robins, a series of guest letters from top iris hybridizers describing the lines producing best results for future award winners . . . New robins for training the young iris growers and breeders of Larry Harder's Youth Program who will be the future of AIS.

Preliminary tally of robin activity by Roberta Torrey shows us with 192 robins in 24 divisions with 1,572 members participating. We add about 10 new members monthly, and less than 10 members drop out of the program a *year!* Tally isn't complete for all divisions, so the statistics are only those tallied so far.

MARKING TIME

Two hints if you're about to label some irises: Fred Mullinax, Cisco, Texas: "I cut old venetian blinds into 3" squares, paint the variety name on the plaster part, thread it onto an 8" piece of heavy wire with nail holes top and bottom." Hooker Nichols, Woodward, Okla., makes his own. "A place that cuts tin for commercial use cut me 100 square pieces of tin. I use clothesline wire, and when the marker is finished it stands 3' tall and it is very attractive."

IDEAS FOR CLUBS

Hazel Stewart, San Jose, Calif., notes that her club's newsletters pay off in increased attendance; another feature is door prizes of rhizomes. Mrs. Albert DeHaan, Wayland, Mich., thinks the idea of a club reserving \$100 to purchase new irises, then using the increases for an auction, is a fine one. Elsie Hesh, Crete, Neb., remarks that the Region 21 fall meeting provided an excellent slide show in the forenoon, with the afternoon devoted to an iris auction featuring brand new introductions. Bob Smith, Pleasant Hills, Calif., suggests that clubs add iris artifacts, iris stamps and other collector's items to their auctions. Mary Duvall, Minneapolis, reports that her society is going to buy some of the other regional bulletins for their library. "There is so much excellent material that is never seen by any except those in the region that we decided the only way to give our mem-

bers access to it was to subscribe to a few."

The Iris Chronicles

Ideal for club libraries, a must for serious hybridizing students, and for anyone preparing a talk on irises or iris history, are the 20 chronicles prepared by members of the Historical Iris Robins. Eight of them cover irises hybridized before 1900. Ten of them concern world famous hybridizers or family firms which span 40 or 50 years of important work, and a few cover 60 years, right up to the present time. The list devoted to European hybridizers includes Barr, Caparne, Cayeux, William and Katherine Dykes, Sir Michael Foster, Goos & Koenemann, Violet Insole, Lemon, Millet & Sons, Murrell-Orpington, Louisa Pesel, Perry and Vilmorin & Co. The American hybridizers covered to date are Bertrand Farr, Willis Fryer, Grace Sturtevant, E. B. Williamson and Charles B. Wing with papers on the Sass Bros. and the late David Hill in preparation. In addition, there's a Collection of Iris Verse and a paper on The Earliest Records, tracing the Iris as far back as 1500 B.C.! Editors are Harriett Segesseman and Eula Shields; among the authors contributing are Laura Bradbury, Kathryn Pohlman, Laura Reynolds, Irene Pyle, Everett Randles, Edna Farthing, Hazel McCaffrey, Gladys Kimmick and Gerta Beach. The entire membership of Historical Robins has assisted in the project. Copies are available for donations to cover cost of postage, ink and paper, plus a small amount to cover indirect costs. For further information write directly to Mrs. Ernest Segesseman, 380 Crescent Drive, Franklin Lakes, N. J. 07417.

Follow the Plant Explorers!

Professor Homer Metcalf heads the department of Plant and Soil Sciences at Montana State University in Bozeman. He's a walking encyclopedia of horticultural knowledge and a supremely enthusiastic iris-arian. His first love, however, is the native *Iris missouriensis* and he spent a fascinating period in July seeking possible sites for the type locality of this species.

The Pacific Coast native irises continue to delight scores of us who live in, or fairly near, their native haunts—a real iris buff just has to be intrigued with so many unique and colorful wild species growing all around. Leona Mahood, Seattle, Wash., writes, "Last spring we were in Redding, Calif., and found irises growing along the road to Lassen Park, about 35 miles from Redding. I think they are *tenuissima*; they are very fragile flowers, white with fine purple lines lengthwise of the falls; on some the lines fuse into a solid color."

Roy Davidson tells of the trek which sent many an easterner, midwesterner and southerner home exclaiming with wonder at it all. "Friday following the Berkeley convention we hired transportation for about 40, and climbed up into the Santa Cruz Mountains to see native irises in their natural setting of conifers and oaks with companion plants. Many easterners thus saw their first *big* redwoods. Ascending the east side of the mountains from Saratoga, there were many of the so-called Santa Cruz Iris (*I. fernaldii*). In much of this area there are admixtures which appear to be mixed *feraldii-macrosiphon*; at least they concur with no description and are in the main a motley group. To my knowledge *I. macrosiphon* is not to be found in pure form anywhere in the area, though there is a colony of it on Mt. Hamilton, a few miles east but outside the area of any other species.

Up on the Empire Grade, *douglasiana* shows its effect in wide foliage.”

Roy further describes *fernaldii*. “Those of the Santa Cruz area do not have the red-based foliage and strong red tint to the spathe valves that is so strongly prominent in the species up in the Sonoma County type-area. Our Deer Trail Farm is hard alongside this Sonoma County type location, where the species first was collected and described by Foster of Harvard. Great clumps of starry flowers in pale cream to deep yellow, with apricot and peachy tints, many intricately patterned, adorn the roadsides and sparkle in the woods for a couple of months each spring. Where *I. macrosiphon*, a dainty nodding little flower found in both the pale to deep violet to dark purple as well as bright to creamy yellow, has crept into *fernaldii* territory, a wild riot of colors and patterns can be found (thought not often) and the search for them is as exciting as the search through any TB hybridizer’s seedling beds!

Hattie Hubbard describes some garden-bred hybrids. “CLAREMONT INDIAN (Lenz), an *innominata* hybrid, is very red. HINGES OF HADES (Davidson) is another red, as is Luhrson’s 5S-12 and ‘Luhrson’s Red’. This last is quite striking and prolific. I do not know why it was never registered.”

Two named varieties from their master breeder, Lee Lenz, are GRUB-STAKE and RIPPLEROCK, brilliant yellow with exotic patterns, and broad, flaring, ruffly flowers.

Many cold climate people yearn to grow these native species, but fear they’re too tender to thrive. Joyce Richards, Mt. Baldy, Calif., describes her winter conditions, (which bear a message!): “It is 85 to 95 degrees all summer with very little night time temperature drop. The snows are off and on with complete thaws between, which is worse for the plants, in my opinion, than a consistent winter cold, and at least one false spring arrives around January when it warms up for several weeks before snowing again. The heaviest snows, only up to 4’, are always around Easter when things want to start blooming anyway. Hot, drying winds are the summer scourge, blowing 80 MPH at times off the desert, and winter flooding. Under these conditions I have had the best luck with pure *douglasiana* (a maritime species) which surprised me. It is planted on a 40 degree slope of decomposed granite plus one sack of commercial potting mix worked in, where it gets full sun all year and drifts of 4’ and more when there is snow. It is completely out of sight under snow at least twice a winter. After reading the Lenz book (after the plant had been planted one year, had doubled in size and bloomed!) I decided I had chosen the worst possible spot. So I purchased more from the same source and planted them beneath pine trees in a sheltered spot with filtered sunlight. These, too, are doing well. *Douglasiana* must be fool-proof.”

Hattie Hubbard suggests how easterners might try the western native species. “Western natives transplant easily when tiny seedlings. Here in the west the general run of soil contains a certain amount of leaf mold, either from having been at one time forest or built up by water deposit. So when you prepare a place for the western natives you should use a liberal amount of leaf mold, peat moss or compost along with good drainage. *No lime!* They may not stand the eastern extremely cold winters, but some of the species have been collected at high altitudes here on the west coast so have

withstood quite cold weather. *Ii. bracteata*, *chrysophylla* and the yellow form of *tenax* (formerly *I. gormanii*), are all natives of higher altitudes and given a well-drained, somewhat protected spot, would be the best for mid-eastern gardens.”

Hattie remarks on Roy Davidson's garden. “Roy's garden is the official Western Native Test Garden. Each year it is open house to all who wish to visit and wander around. He set up the test garden as a place where we could send our best seedlings to be grown and displayed.”

Winter Damage

Lorena Reid, Springfield, Ore., discusses it. “I think it may be the timing of the cold snap that determines which varieties will be affected in a late freeze. For example, if our April bad series of freezes had come a week later they might have affected a whole different set of varieties and let the varieties that did get badly damaged escape with little injury. Damage usually occurs when the growth of an iris clump is at certain critical stages when cold hits. Since different varieties begin growth at different times, one may be affected on year and another the next.

SUMMER DAMAGE

Dr. Cecil Wadleigh, Lanham, Md., says “The very hot humid summer here (1968) was the worst in my experience in abetting the development of crown rot. I set out 50 new varieties of TB in July and 12 of them were hit by crown rot. I ruthlessly cut away all infested tissue from the rhizome, exposed it well to the sun and applied a fungicide. Most of the rhizomes so treated sent out new shoots along the sides.”

Maidel Van Horn, Nitro, West Va., discusses “fan rot.” “This is actually sclerotium rot produced by the extremely high humidity and very little sun. Oddly enough, it wasn't always found in the more crowded clumps. I attacked it in two ways, but don't know which helped the most, my ‘doctoring’ or a heavenly change in the weather. I went through each garden, clump by clump, with a sharp knife, a sharpened teaspoon and a bucket of chlorox water. I cut every affected fan away from the rhizome, cut out any rot that had progressed into the rhizome, thus exposing it to air and sun, scraped away any soil I felt was too high up on the rhizome and then poured a cup or so of chlorox water (depending on the size of the clump) on the rhizome and surrounding soil. Just as I thought my back would be permanently bent, a cool front came in bringing dry air breezes to dry out the soil, and hot sun during the day.

SLIMY PESTS

Slugs and snails are problems in some gardens. Hazel Stewart in San Jose, Calif., has found Bugetta snail bait is a must in her yard after weeds and grass are pulled. We've found Corey's Slug bait fairly successful if used faithfully according to directions for several reapplications. Lorena Reid writes, “In addition to being careful that animals don't get slug bait, we have to be careful about little boys who like to put interesting things in their mouths. We don't use bran or pellets for that reason, but the Go West liquid slug poison you mix with water (1 tbs. per gal.) and watering foliage that the slugs might get will really kill them.”

For another sort of chewing pest Leda Christlieb in Kansas reports: “I

burned off the grass and dead foliage on my main planting. It surely makes them look sick, but is good for the irises and hard on the labels."

CLEANUP AND MULCHING

Fred Spahn, Dubuque, Ia., always cuts his iris leaves down to 6" before applying winter mulch. Ione Disney, Fritch, Texas, cuts the tops off her irises in October and cleans all clumps well. "I find when I do this I am never bothered by leafspot in spring. I sometimes sprinkle a little bonemeal and superphosphate around at this time, too." In Quinlan, Texas, Eunice Smith says, "One year I put on a mulch of old wheat straw and had no leafspot. I used straw because I was irrigating and thought straw would help keep the plants from scalding in the sun."

Marie Wertz, Marshallville, Ohio, is one of our longtime faithful robin directors who's helped many a novice iris lover become a confirmed irisarian. Marie cuts the leaves off her irises each fall and then places a shovel of sand over each one to prevent heaving. Later, if weather permits, a mulch is added. Marie also discovered that placing a plastic bag around an iris that is being stubborn about growing seems to help.

Charles Carper, Seattle, Wash., last spring used Simazine on some iris beds to prevent seed germination and reports it was quite a satisfactory method of weed control, so he applied it to other beds last fall. "Simazine does not seem to affect the established irises, but I would hesitate using it where new seedlings are to be planted."

Atrazine is another product reported by two robin members. Lyda Davidson, Parkersburg, West Va., says, "I spray with Atrazine for weeds, using one tsp. to two gallons of water. Dampen the ground on the sides and between the rows. You can spray on top, but I am always afraid." Lee Kohler, directing the Aril-Arilibred robins, reports his experience in Corvallis, Ore., "I have used Atrazine on my irises for two years and can see no harm from it. It really cleans out the grass and most of the weeds. It can be used anytime of the year, just works more slowly during cold weather."

Bill Brown, Wichita, Kan., fumigated 5 beds about 1000 feet last summer, using Eptam with satisfactory results. Four beds had grown irises for 20 years and seemed to be as good as new ground. The other bed was in new ground, full of native Bermuda grass and Mexican sandburs.

A practice used on the miniature dwarfs is described by Esther Terrill, Burlingame, Kan. "Even if I don't get all the weeds out all the time, the irises grow. I've found they do OK if I can keep out the tall, large broad-leaved weeds. Grass does not bother them as much unless it is the smothering type. Grass seems to be their natural habitat so they can take it in their stride. In fact, our plant inspector told me last year we were lucky to have the grass as it had taken up enough extra moisture faster so that we had no rot in the field. Others with clean gardens had lost many irises to rot. First time I was ever thankful for weeds! And it makes it easier to burn out the iris in the spring too. I have to go through the patch and put tin cans over the wood or metal tags before burning. Burning is good here; gets insect eggs, weed seeds, fungus, and so forth. Irises burned off are clean and green. A cultivation or two keeps them clean for a while after bloom time."

PARTY FAVORS

Dorothy and Howard Goodrick, Bakersfield, Calif., made absolutely charming potted irises as favors for Region 15's spring banquet last year—the hit of a fabulously successful evening. Dorothy tells how it's done. "We used Forma-film, a liquid plastic already mixed in cans, available in many colors. Bend pieces of light wire to form each separate flower part. Dip each separately into the plastic; it only takes a second for the liquid to congeal. You then wire the parts together to form your iris flower. I glued on beards cut from plush-like pipe cleaners which come in all colors. For foliage, bend wire to form each leaf, dip in plastic, then put flower and foliage together. For pots I use caps from hair spray cans; they have circular wells in them into which I put some clay, then insert the leaves and flowers, and fill the caps with fine white rock. The plastic dries somewhat transparent but can be sprayed with enamel on the underside to give an opaque, darker colored flower." The Goodricks made fanciful plics, wild bicolors, green and red and black varieties which hybridizers will be hard put to achieve in a hurry!

A NOTABLE ARILBRED

Wilma Vallette, who's been tutoring serious students of hybridizing in her famous Advanced Hybridizer's robins for more than 20 years, reflects on the first flowering in her Declo, Idaho garden of Gene Hunt's ESTHER THE QUEEN, introduced by Tell last year. "A guest from Gene Hunt was the most I ever saw in an arilbred seedling. It didn't bloom the first year but a two-year plant had 11 big tall bloomstalks a good 42" high, with huge, lovely onco-type flowers, a huge, thick, wide sepia-brown beard set atop a smallish black signal. It bloomed steadily for 3 weeks or more, and every judge who saw it simply *flipped* (including me). Its seedling number is ORB 64-1. After sending Tell all but one rhizome, I later found a tiny nubbin left in the ground, which developed six husky little fans—the oddest looking affairs, as the little onion-set shaped increase buttons were here and there all over the rhizome, even one growing out of the bottom on a little short 'runner!', as if *stolonifera* was somewhere back in its pedigree. It came from Sundt 5631D (one of the ARDIMAC series) X KALIFA GULNARE, so had very little TB in it, despite its height, size and vigor."

REDS AND PINKS

Teresa Martin, Medina, Ohio, writes about pink seedlings turning up among her red x pink crosses. "(ORELIO x CALDRON) X ESTHER FAY produced two seedlings, both pinks; (ORELIO x CALDRON) X Jungle Fires crossed with One Desire, all clean clear lemons, pinks and creams, many with pink beards; (Ranger x Heart's Desire—both reds) X Orange Crush: all various shades of orange, two pinks, all with tangerine beards; one deep orange with tomato red wash, one nice pale orange. From this I would conclude that many reds carry the factor for tangerine pinks. Named reds were not crossed directly to pinks, just seedlings from reds. All crosses I've made with named reds directly to pinks have yielded only yellows and blends and no red beards."

OLD VERSUS NEW

Reva Oates, Kenton, Ohio, says she's no longer discarding old varieties and is looking for some oldies to replace those lost. She put in 96 new

ones this past summer but thinks many older irises are prettier and more resistant to diseases and pests. Marie Wertz agrees; she's on the lookout for some of the real old varieties to replace those she lost or discarded by mistake.

Two good reasons for working with time-tested tried and true varieties are shown by Jessie Schalaïda in Breaux Bridge, La., and Donald Wagner in Oakes, N. D., which have climate situations to try the hardiness of any iris! Jessie reports:

"My irises bloomed well this spring. Early spring rains and cool weather were, I suppose, good for them. The ones that bloomed were "oldies," including such varieties as BLUE SHIMMER, STARSHINE, CLOTH OF GOLD, CLIFFS OF DOVER, etc., but the job here is to get them to bloom. I am just pleased that I had so many blooms." Perhaps people in the deep South who have had trouble getting the tall bearded beauties to flower in their climate might take heart from Jessie's report, and hybridize with lines proving satisfactory to develop modern ones which will thrive there.

Don reports, "We had one of the most ridiculous springs I've ever seen. To start, the first two weeks of April were so mild the frost came out of the ground. I took the mulch off the iris beds since plants were already putting out new growth. Around April 20 we had a cold spell lasting about a week. One day it would snow, the next would freeze hard enough to crust the ground. During this time I covered the irises at night and took the mulch off at noon, unless it was going to be cold and cloudy. By mid-May the weather settled down and we had one of the nicest springs we've ever had. Rain fell in the right amount; we didn't have to water until June 15. The last week in May my dwarf irises started blooming. On June 6 my TBs started to bloom.

Earl Stanley, Carmi, Ill., reports his season started May 1, and ended June 1, with some later bloom. Rain and hail ruined most crosses; only a third of his irises flowered. Many flowered on short stalks. He listed performance of some old dependables in this season. "DOTTED SWISS really took rain and hail much better than MEMPHIS LASS. ROCOCO had weak bloom stalks, bent halfway over but was a good late bloomer. BLUE SHIMMER, weak stalks; CARMELA bloomed early to late. BLUE SAPPHIRE and HARBOR BLUE, both good; LULA MARGUERITE, bloomed well and long; EDENITE, GARDEN GLORY, COLOR SERGEANT, all bloomed on short stalks. SPRING FESTIVAL was a good grower and bloomer." The process of selecting the lines which perform well in spite of season's peculiarities, without tying up hopes and hard money, is often the novice irisarian's best reason for close observation of his older varieties.

THE BULBOUS IRISES

Almost all robins are full of reports of interest in various types of bulbous irises. Don Wagner in N. D. reports his were most rewarding, though they have a very difficult time growing them there. Of nine which came up, only four bloomed. Marie Trissel, Mooreland, Okla., grows them, but plants new bulbs every fall. She reports that some old ones come up, but she can't depend on them. Cow manure seems to produce very large flowers for her. Jessie Schalaïda in Louisiana reports Dutch irises start to form

their blooms in February, but she has poor luck with the English irises; they rot, after sending up foliage but no bloom.

Clarke Cosgrove, San Gabriel, Calif., writes, "Even though the bulbous irises are not registered by the AIS—the Dutch record them—we need information on them and their culture. I cannot make the bulbous irises persist here. About two years of bloom is all I get and then they disappear. I suppose the answer is to breed a strain suitable for our climate. That should not be difficult as their ancestors came from a similar climate."

Mabel and Norman Shirar, Bangor, Calif., describe a number of collector's goodies which they are growing. "Although ours are mostly tall bearded and arilbreds, we have some Dutch, dwarfs, Japanese, Vesper irises, English irises, spurias and *I. unguicularis (stylosa)*. The latter was beautiful, blooming through November and December. We also have seedlings coming from *Ii. clarkii*, *aurea*, *ensata*, *notha*, *hookeriana*, *nepalensis*, and *kumaonensis*.

Fred Mullinax in Texas writes: "Corn flag used to be a common name for Juno irises. The plants look like miniature stalks of corn and the buds like little ears of corn. The only red bulbous irises that I know of are the English irises (*xiphioides*). The red is more of a wine color like the red in lilacs."

Jean Witt, Seattle, says, "The only white *reticulata* in commerce at present that I know of is *I. vartanii alba*, a December bloomer in warm climates. Here its foliage gets winter damage. Summer watering is hard on *reticulatas*. They need to bake, being mountain and dry land plants. When leaves die down, store in the basement, until fall in October, when we sort out the increase, renew soil in the pots, fertilize and plunge the pots outside again." Jean notes that some catalogs call everything *reticulatas* and do not specify *I. reticulata*, which is purple; a yellow one would almost certainly be *danfordiae*; the yellow of the group is not common. "I raised mine from seed; *reticulata* is easy from seed; they bloom in about 3 or 4 years. You can set seed by hand pollinating."

Jayne Ritchie, Huntsville, Ala., describes a few things she grows. "*I. bakeriana* is a *reticulata*-type. It is a lovely little thing, quite small, light blue standards, rich velvety black purple falls with a white area patterned blue and black. It requires good to sharp drainage and a good dry baking in summer. Mine bloom here the first week in February with the early species crocus on my sunny slope. *I. arenaria*, similar to *I. flavissima*, is a pseudo-regelia species from Hungary. It likes sun and sandy soil or rock garden drainage. The narrow foliage gets to about 12" high here and stays nice all summer for me. The blooms vary in shades of yellow, generally with orange beards, on 3" to 6" stems, while foliage is still low."

MINIATURE DWARFS

The tiny jewels of earliest spring, they are often called, and *I. pumila* is responsible for the myriad colors one finds and for the heavenly fragrance with which it greets the spring. Bruce McIntosh, Carmel, Ind., writes, "*I. pumila* is very easy to grow here. It is my favorite of all irises. The only thing against it is that it blooms so early that it can seldom be crossed with other species. I have no trouble with it in full sun, plenty

of drainage, ordinary soil, some grit preferred, for it is an alpine. For bright colors, yellow, purple, pumilas are good for early spring."

Elsie Zuercher, Portland, Ind., is Region 6 RVP and edits publications for the Dwarf Iris Society. She describes her early season. "The dwarfs started blooming the first week of April. They are lovely. Some of the newer introductions that I have are rather large for miniature dwarfs here. Many are probably lilliputs in reality, since they bloom with lilliputs and approach them in size toward the end of the season. HULA DOLL and IRISH DOLL from Alta Brown are in this group. They bloom with the late dwarfs and early lilliputs and are of about lilliput size. The same is true of the late Smith varieties BUMBLE WINGS, ANGEL SONG and FAIRY DREAM. LITTLE SMOOTHIE, which I thought such a perfect miniature last season on a one-year plant, this year was quite tall, although the bloom is still rather small. It is unbranched. Its color is dark wine-red, about the shade of SABLE NIGHT. Kavan's PATSY JOE is of the same type. The foliage is a little coarse for a miniature, and the bloom a little large. It is within the 10" range, however, and a lovely lilac shade. It was full of bloom from early season to late. SHAMROCK FAN is beautiful; white standards with a tinge of green (really just an off-white) and round, flared falls of chartreuse-green bordered with the color of standards. The green spot is marked with texture veining of a leaf green. The whole flower has a texture something like WINTER OLYMPICS on a small scale. This year it was a little over-large for a miniature. All of these are lovely irises and nice additions to the general garden, even though too large as we usually judge a miniature dwarf here. FABIA is of similar size and bloom season. It is rather tailored, with a spot about the color of CHERRY SPOT on the fall. This is not a full spot, nor a halo; it is solid but sort of feathered at the edges.

"CHERRY HALO is a definite cream, not white as described, with a half-spot of bing cherry color. It is very nice, I think, but I wonder if mine is the true variety. I was sorry Leona Mahood's other varieties, BONNIE BABE and WILLIE WINKIE, did not bloom. Her ORCHID CHERUB was very nice and quite small. The color is a nice orchid, a little lighter than ORCHID FLARE, with a very small darker spot just bordering the beard. DREAM STUFF was wonderful. I think it is my choice of the year. It bloomed with the pumilas, is of pumila size, nicely domed and flared; the falls are nice and round, wide at the haft. It is a very clean unmarked self of pale orchid, but it is entirely different from any of the others described as orchid. This should be a must for all of you.

"I liked several of Alta Brown's varieties. APRIL CHARM was yellow with a green spot. APRIL ROSE was a very bright variety and one that blooms and grows very well. ORCHID ELF was very nice also and very like ORCHID CHERUB. CHRIS, GLOW GLEAM, PASTEL DAWN, RED GEM, BUTTERCUP BRITE and some of the older Marx chamaeiris varieties were out as the intermediates were blooming nicely. I like some of Wilma Greenlee's varieties very much. GALAXY and VANILLA ICE are very nice.

Hooker Nichols, Woodward, Okla., is an AIS junior who is heading

for a great future as a hybridizer. One of his big interests is breeding for reblooming dwarfs. He is enthusiastic about a seedling from last spring. "The parentage is BEE WINGS X a common unnamed reblooming off-green that I have. It is a miniature dwarf, about 5" high. It is almost the same color as BEE WINGS, but without the brown thumb print on each side of the falls. It will be available to any hybridizer who would like to use it in his hybridizing program." Hooker also would like to hear from other hybridizers of dwarfs who have found reblooming tendencies in any of their seedlings and perhaps help him in his project to produce tiny irises for other seasons than early spring. At 14 coming up 15, Hooker's an old robin hand, and is the nephew of the late Theda Clark of Woodward, Okla., who instilled in him a love of irises and his primary education as an iris breeder.

HANDLING SEEDS

There seem to be as many variations in the handling of iris as there are hybridizers who produce them. Here's Edith Cleaves: "I always pick pods that aren't fully ripe, but just before they are ready to open themselves. The pods are opened into a 3" aluminum pie pan, into which I've put an envelope already prepared with the name or identification of the seed pod. I allow the seeds to dry for a few days before putting them into the envelope. I've never had any trouble germinating these seeds. They dry easier, with no chance of mold as the air gets around the seeds."

George Stambach at Pasadena notes that he's heard and read of TB people who say that mold on seeds doesn't hinder their germination. He's planted them and also moldy native iris seeds but has not noticed any unusual effect on germination.

Bernard Hamner, Perris, Calif., reports, "We harvested 250 pods. We condition them by placing the seeds into the refrigerator for about a month, then into the freezer for another several weeks." Bernard and Celeste live in an area of southern California where the seeds would receive no natural winter freezing and thawing.

Another southern Californian, Mrs. George Nelson, in Arlington, has planted seeds January 25 in gallon plastic containers for two years running. She always has a number of moldy seeds and has never been sure whether its good or not. We recall a long-ago report from the late Sidney B. Mitchell who told of the practise of rubbing moldy seeds between the palms of his hands to remove the mold, and there seemed to be no difference in germination.

Reuben Smith, Marion, Ohio, never lets his seeds become really dry before planting, because it helps to reduce the dormancy factor involved in iris seeds. Most of his 2800 seedlings have fantastic growth for first-year plants lined out from spring flats. New seedlings are left in the same place until they have bloomed twice because first bloom does not always show details one can find in a second-year plant.

WHO'S A HYBRIDIZER?

Bennett Jones, Portland, Ore., is one of the top breeders of bearded irises, large and little. We think he's written a masterpiece on what constitutes a hybridizer.

"How, when and who decides when one can be called a hybridizer is

an interesting subject, perhaps not too important, but I have heard some often heated discussions on the matter. You have all read the purely scientific man who refers to all others as 'pollen daubers', wasting their time; and you have all heard the pollen daubers belittling science. I am sure it must be satisfying for the scientifically inclined to predict a course of action and see it work out as planned. It also is satisfying to the pollen dauber who sibs, backcrosses, and outcrosses, picking up what he wants here and there to reach his goal as planned. I wonder if the pollen dauber who really studies his work, carrying out his winter plans, doesn't make about the same crosses as science does. Then there is that old one, that if the scientist is so smart, how come he doesn't have all the medals. The answer to that is an eye for selection—you have it or you don't. The person who can recognize form, proportion and color when he sees it will come out on top every time. Whether you get your iris with knowledge of genetics, or just by daubing, isn't so important perhaps as being able to recognize how good it is, or isn't, when you get it. When eventually someone refers to you as being a hybridizer, it will most likely be for that same ability and how well you used it—not whether you used science or daubed pollen."

Carolyn Hale, Bald Knob, Ark., describes a charming native of her area. "I have a bed of *I. cristata* which I started from a wild patch on a creek bank a few miles out of town. One year a pure white one bloomed and it was lovely."

Maynard Thaxter, Nehalem, Ore., reports another collector's item. "Those who have seen *I. tuberosa* in bloom here in February and March seem quite taken with them. In spite of the fact that blooms are small for an iris, they are most unusual, a green and black velvet bloom."

REBLOOMING IRIS SYMPOSIUM

Total points awarded		No. of times voted	points in under-200 growing days	points in 200-300 growing days	points in over 300 growing days
151	CAYENNE CAPERS Gibson '61	29	12	67	72
115	FALL PRIMROSE Brown '56	21	81	30	4
102	BLUE SURPRISE Austin '57	18	21	55	26
82	SKY QUEEN Craig '62	15	36	18	28
68	BEAUCATCHER Craig '55	14	10	41	17
55	FIRST SNOWFALL Austin '62	12	6	32	17
55	JOSEPH'S MANTLE Craig '49	16	6	28	21
53	SUMMER WHITEWINGS Brown '61	11	38	12	3
39	GIBSON GIRL Gibson '46	8	27	7	5
36	AUTUMN TWILIGHT Brown '48	8	27	0	9
36	LOVELY AGAIN Smith '66	7	29	7	0
31	CHIMERA Zurbrigg '61	7	22	9	0
31	JULY BEAUTY National '43	6	26	5	0

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McCord	113		

From the Editor's Desk

After many hours of carefully examining the financial reports of similar organizations and after examining also carefully the wishes of the membership for the kind of *Bulletin* and other services desired, it seems to us that the best way to head off a raise in dues is for everyone to put his shoulder to the wheel and adopt the slogan, "EVERY MEMBER GET A NEW MEMBER." A thirty per cent increase in membership would allow us to operate comfortably; a fifty per cent increase would allow us to expand to some of the services members want; and a one hundred per cent increase would make us a really functioning organization. One look at the cost of the January *Bulletin*, which seems to be the kind of publication our members want, if we can judge by the mail that came in, was enough to convince us that we are facing the rough, rough road of present-day economics, and we either have to have more members, an increase in dues, or cut drastically.

ARTICLES FOR THE BULLETIN

Contrary to the experience of 1967, we have been "swamped" with articles for the last six issues. Many of the articles we could not use were really rather good, but with rising costs, we have to pay strict attention to the number of pages we can publish. Unless membership increases sharply,

we cannot afford again the 136-page, \$4500 cost of the January 1969 *Bulletin*. We do hope that this issue did succeed in increasing interest and membership.

The format of the *Bulletin*, to meet this need, must be about as follows: 1. The necessary announcements. (We are considering whether or not some standing matter may be published but once a year, with reference to Table of Contents in other issues.). 2. A central theme of general interest, such as "brown irises" in this issue, with invited authors, and given some major emphasis. 3. Articles dealing with the sections, departments and activities of AIS. 4. Short articles, dealing with a wide variety of topics of national interest.

We do not like to be adamant, but we have to observe the economic facts, and the chance of any article being published is enhanced if it is short, directly to the point, and written in a language that captivates readers and about a topic in which there is general interest. It is one of the old adages of writing that many articles can be re-written with half the length, and yet say more and say it more interestingly.

To keep from spilling over at both edges, we will have to observe rigidly the allocations we have made for space, and will have to reserve the prerogative of editing. Part of this, of course, is due to our desire to cover as wide a variety of topics as possible, and to give meaningful information about all of the sections and departments and activities of the Society.

For those who want a little preview of the Wichita convention, there is the Early Show, featuring median irises, on April 27, at the Minisa Park Recreation Building, 704 West 13th St. Then, on May 11, Wichita holds its 20th Annual Show featuring tall bearded irises, at the Edgemoor Park Building, 9th and Edgemoor.

And those who travel by car to Milwaukee may want to stop for the Region 21 meeting at Lexington, Nebr., May 31-June 1.

To those who have inquired: We have been out of *What Every Iris Grower Should Know* for some time, but the Board made arrangements at the Chicago meeting that when the revision is done, copies will be mailed to those who joined the Society after our supply was depleted. The first section of the revision was printed in the January *Bulletin*, and arrangements have been made for such revisions to this as seem good before this section is included in the final printing for the booklet. Work on the other section has been slow, because we find creative writing difficult during the period of convalescence from surgery; but it has started, and is to include such items as culture of irises, show practices, and a number of other items which appear useful.

An interesting comment with respect to Bill Simon's article, "The Grand Ball," is that he has entered five shows in the last two years and won sweepstakes and Queen-of-the-Show four times.

AIS is in receipt of a check of \$500.00 from the Oklahoma Iris Society to be applied to the research project at Mississippi State University. The first published results of this research are found in the January 1969 *Bulletin*. As we have noted often in these columns, we are grateful for these research gifts, for many of the problems with which we are beset in this world must look for solution in the careful and meticulous methods of well-planned research.

We would like to publish a list of all shows as a help to those who are traveling through the country and might visit such shows if they had a list, or those close enough to make the trip if they had the list. But there are real problems. Despite the fact that we mail the fifth of the month, second-class mail is so slow that anything held before the 20th of April would have to appear in the January Bulletin, which means that copy would have to be with us by October 15; and anything appearing in the April Bulletin requires copy by February 15. If local clubs can set dates early enough to meet these we will be glad to publish these dates.



CORABAND

(Hamblen '63)

“Best Spike In Show,” B. I. S. 1968

“The Josephine Romney Towndrow Trophy was presented to B. I. S. in 1953 by Kenneth Romney Towndrow in memory of his wife. It is a statuette carved in apple wood and represents the classic myth of the transformation of Daphne into a laurel bush. Her toes are turning into roots and her fingers into leaves. The carver was Mr. E. Carter Preston, who did much of the wood carving for the Liverpool Cathedral. The trophy, which can be won once by any variety, is given to the best spike in the B. I. S. Show with ‘form’ as a major consideration.”

In 1968 this trophy was won by Mr. Ray Jeffs, with Mrs. Hamblen’s CORABAND.

The San Diego-Imperial Counties Iris Society had a couple of unusual features last fall. First, they had a fall show on November 17. One of the noteworthy features was the Queen of the Show award to Mrs. Alberta Renger with RUTH’S LOVE. Mrs. Renger had never exhibited before and had brought the stalk to use in an arrangement. Other exhibitors prevailed on her to enter it in the specimen classes. Then on November 30, this society participated in a community exhibition in Old Town, San Diego. Also newsworthy is the fact that this society will hold a spring show on April 26 and 27, helping to commemorate the 200th birthday of San Diego.

We are indebted to Mrs. Ruth Lyman of Elgin, Ill., for the following: “A quote from *Oriental Rugs in Color*, by Preben Liebetram (MacMillan) — ‘With the Iranium (Persian, Sarouk), flowers have always been an important and principal theme . . . The iris, which appears in the finer Iranian rugs, and in a few nomad rugs, represents religious liberty.’”

Your editor is deeply grateful for the "beyond the call of duty" which the staff of Livestock Press gave to the January *Bulletin*. Getting out a *Bulletin* in the midst of a seven week session in and out of hospitals and medical laboratories is an ordeal, and could not have been done without the devotion of the Livestock staff to the cause. So may I say in this way my heartfelt thanks to Walt, John and Toni. It just could not have been done without you.

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Rubber Stamp
With Name and Address

We invite other flower societies' inquiries regarding their seal and name and address stamps.

Townsend's Laminated Plastics & Rubber Stamp Service

2407 West Jackson Street

Muncie, Indiana 47303

(Please print name and address)

INTRODUCING FOR 1969

MACONAQUAH (McCord 1969) TB 36" M. Sdlg. 6357. New Snow X Blue Sapphire.

Medium-size cool white with frilled and liling form of Blue Sapphire, excellent substance, blue-tipped beard; fragrant; rather high-branched but with good 3-way placement. Named for the White Flower of the Miami Indians, Frances Slocum. \$20.00 net

Co-introduced with Sierra Vista Iris Gardens, Yucaipa, Calif.

GRAND JUNCTION (McCord 1969) Siberian, 28" M. Tunkhannock X Tycoon.

Superb new Siberian with very rich bright blue falls with lighter spiderweb pattern in throat, slightly darker standards, style arms light sky blue. Large, broad blossom. Makes excellent growth both here in Midwest and in Far West tests. HC 1968 under seedling No. 6250. \$15.00 net

FORREST McCORD

208 N. Cook Road

Muncie, Ind. 47303

SCHORTMAN'S IRIS GARDEN

849 West Putnam Avenue

Porterville, California 93257

INTRODUCING FOR 1969

GOLDEN MEMORIES. 36". E-M. \$25.00
This wide, fluted, rich yellow self involves Gold Formal and Stop seedlings.

CALICON. 36". E-M. \$25.00
Dark red-violet self. Beautiful fluting. Violet to brown beard. Blooms again in the fall here.

HAWAIIAN LOVE CALL. 38". E-M. \$25.00
Light violet self. Has some lace. From Polka Lace. Brown to blue beard. As gay as the island itself.

DOVE IN FLIGHT. 36". M-L. \$30.00
Heavily fluted blend near color of male mourning dove.

SEEING RED. 36". M-L. \$25.00
After years of red breeding, this is tops in a red iris for color. Clean. From seedlings of Grand Surprise and Tall Chief.

WE SELL ONLY OUR OWN INTRODUCTIONS, SO ORDER FROM THIS AD. NO CATALOGUES.

DON'T BE TOO LATE

The 1929 Check List is sold out.
The 1939 Check List is sold out.
The 1949 Check List: A limited number at \$2.50.

Students of iris families and pedigrees constantly are inquiring as to where they can get these books. But they are now collector's items, and copies are snapped up as soon as anyone puts them on the market.

DON'T BE TOO LATE FOR THE 1959 CHECK LIST

This Check List contains pedigrees and other information about thousands of irises registered and introduced from 1950 through 1959, and is a must for those who trace pedigrees back to ascertain the most likely source of particular characteristics of an iris, or who trace back to find family lines that promise the most in the improvement of irises. This book is a must for all who hybridize; it will be a source book for the next decade.

DON'T BE TOO LATE — ORDER NOW — PRICE: \$3.50

Clifford W. Benson, Executive-Secretary
American Iris Society

2315 Tower Grove Ave.
St. Louis, Mo. 63110

EL DORADO IRIS

500 E. Locust

El Dorado, Kansas 67042

1969 Introductions by Helen Graham Reynolds

GIRL GUIDE. 6-670. M-L. BB. 18". Closed standards of greyed blue. Falls greyed blue-violet. Beard blue, tipped gold. Good substance and nice stem. Sib to BOY SCOUT '68. Jungle Shadows X Privateer sdlg.\$15.00

WHIMSICAL. 211-61. M-L. TB. 39". A large trim, well-branched cool white iris with large splashes of sky blue over entire flower. Wide petals and a nicely shaped flower. From 54-472 (blue) X Seamaster\$20.00

BLUSHING BLONDE. 170-67. M-L. TB. 35". A beautiful, ruffled, recessive lemon. Wide falls, brushed with red. Good grower and blooms well. Nice branching. A breeder's iris and an unusual addition to any garden. From seedlings involving Butterhorn, pinks and plicatas, and Sass 55-548\$25.00

ORCHID ECHO

Seedling 78A. 38". M-L. VB4RV. Melodrama X Rippling Waters. Domed lobelia standards. Flaring petunia-purple falls. Blue beard tipped yellow. Fine branching and bud count. Excellent substance. Flower is delightfully ruffled and laced on both standards and falls.

HC 1968

\$25.00

Edna Yunker

P. O. Box 8

Taycheedah, Wisconsin 53090

LANDSEND IRIS GARDENS 1969 INTRODUCTIONS

- DRESDEN DREAM:** Sdlg. 63-13. TB-M-L, 36". Sensational warm white with pale orchid infusion over flower. Stds. closed and ruffled. Falls fluted and deeply ruffled. All petals extremely laced. Falls backed with a rich golden yellow extending to upperside, forming narrow border on edges. Substance unequaled and sparkling, creating crisp finished flower. Outstanding form and branching. High bud count. White beard tipped orchid. (Celestial Snow x Music Maker x Goodness x Marilyn C. x Orchid Brocade) HC '68 (7 votes)\$25.00
- FOND ILLUSION:** Sdlg. 61-181-2. TB, M-L, 38". Large ruffled apricot of excellent form, branching and substance. Graced with old gold at the hafts and extending to tips of the flaring falls. Tangerine beard terminated with old gold. High bud count, assuring extended bloom-season. A hybridizer's delight in every respect. (Orange Chariot x Rainbow Gold x Orange Parade x Marilyn C. x Chinese Coral) \$25.00
- ANTIQUÉ TAFFETA:** Sdlg. 65-28. TB, M-L, 38". The flower and name—so reminiscent of the fashionable iridescent taffeta of yesteryear! The flower has a different and delightful form with lasting substance and transitional blending of distinct colors; not matched by the color chart. Stds. closed and of light mauve with an olive-buff overlay. Falls deep violet (aster-mauve), with olive-buff hafts that extend in fan shape to the tips of falls, becoming an edging. Falls gracefully flared and held horizontally. Gold beard finished in olive. Hardy, vigorous, of fine form and color. Exceptional in high bud count. The entire plant and flower display the finest qualities of each iris involved in this creation. (Apropos x Melodrama x Commentary x Claudia Rene x Wild Plum)\$25.00
- DELICATE SPLENDOR:** Sdlg. 63-14. TB, E-M, 36". This iris has every quality sought by the discriminating grower and hybridizer—vigor and hardiness, stems of the strongest fibers and tissues with perfect branching, superior flaring form, leathery texture and substance that defies the elements and it readily sets seed. The blossom is a clean blending of ivory and delicate coral-pink and is complemented with a wide tangerine beard tipped with paler coral. Could one ask for more in a flower and plant? (Spring Festival x New Frontier x Dawn Crest x Coral Kissed x Lunar Fire sdlg.) HC '68\$25.00

Mrs. F. Allen Brown, Landsend Gardens

4326 Grandin Rd. Extension

Roanoke, Virginia 24018

1969 INTRODUCTIONS

ARCTIC TORCH. Sdlg. 66-7A. TB. (Rippling Waters X Arctic Flame). Beautifully proportioned pure white self with vivid red beard. Stiffly held overlapping standards; falls wide and semiflaring. Large ruffled and fluted blooms are of very heavy substance, perfectly branched on sturdy 36" straight stalk. Prolific grower with wide blue-green foliage. A perfect show specimen. Mid. HC '66\$25.00

DAWN BLUSH. Sdlg. 66-6B. TB. (Esther Fay X Lilting Melody). This true deep pink self with deep coral beard is a perfect color blending of its parents. This much needed "different" color sets it apart from most pinks now in commerce. Tightly held closed standards and near horizontal clean wide falls are very ruffled and fluted with heavy substance. Candelabra branching on 34" sturdy stalks makes this an exciting contender in any show. Wide deep green foliage. Limit one. Mid. HC '67\$25.00

RADIANT BEAM. Sdlg. 66-2A. TB. (Arctic Flame X Marshmallow), Star attraction in my garden the past two seasons. Clean medium yellow closed standards. Wide semiflared falls are pearly white with deep yellow at the haft area and upper edges of falls, matching beard. Large, nicely proportioned very ruffled and fluted blooms are ideally spaced on 38" heavy stalks. Leather-like substance defies adverse weather. A robust grower and good increaser; has wide deep green foliage. Fertile both ways. What breeding potential!! M-L. HC '67..\$25.00

One each of above, \$60.00. MARSHMALLOW (Olson '67) included on orders received before August 1, 1969.

MARVIN G. OLSON • 1549 Columbine Drive • Webster Groves, Mo. 63119

INTRODUCING

JUANITA T. (Tallant '69). Pacific Panorama X Poet's Dream. Sdlg. 66-26. M. 36". TB. B1M. Beautifully shaped medium sea-blue self, heavily fluted and ruffled, light blue beard, well-branched. Excellent substance and vigor.

This iris will be available from the following commercial gardens.\$25.00

1. Mission Bell Gardens, 2778 West 5600 South, Roy, Utah 84067
2. Landsend Gardens, 4326 Grandin Rd. Extension, Roanoke, Va. 24108
3. Noyd's Iris Garden, 1501 Fifth St., Wenatchee, Wash. 99801

Mrs. Mollie Tallant

Box 144

Edmond, Oklahoma 73034

INTRODUCING TWO NEW GREEN IRISES

Mrs. Dale J. Martin R. 7, 4520 Sharon-Copley Rd. Medina, Ohio 44256

AMY VERONICA (Teresa J. Martin '69). Sdlg. 66-G5. TB. 32". GY1F. ((Char-Maize x Queen's Lace) x Curl'd Cloud)) X Green Chance. Large, very beautiful, ruffled flowers with closed standards and broad, widely flaring falls. A brilliant greenish yellow self with a narrow apple green blaze at the end of the yellow beard. Underside of falls very green. A late bloomer with extremely good substance. Somewhat short of buds but definitely worth while. Healthy, purple-based foliage, very hardy. Fertile both ways.\$25.00

GREEN BUMBLE. Sdlg. 3-62. IB. 18-20". E-L. Y1Pcm. Green Spot X greenish yellow sdlg. (Sable x unknown). Standards primrose; falls cream with a large green spot. Yellow beard. Very early and very floriferous. The branching is exceptional for an intermediate. Closed standards and round, horizontally flaring falls.\$10.00

ONE OF EACH FOR \$30.00

RUBY RUFFLES. To be introduced as a breeder at a later date; may be reserved now.

MY FIRST INTRODUCTION FROM VIRGINIA

PO TING. Sdlg. 65-1. (J. Lynn). M. 34-35". Personality Plus X Whole Cloth. Lovely combination of lilac violet standards and buttercup yellow falls; faint trace of yellow around the falls and a heavy yellow-gold beard. Branching and growth are excellent. Put on a fine show at the convention in California in '68. Should be an interesting parent. Net\$25.00

May be ordered from:

Mrs. Frances Brown's LANDSEND GARDENS

4326 Grandin Road Ext.

Roanoke, Va. 24018

INTRODUCING FOR 1969

LORD BALTIMORE (D. C. Nearpass '69). ML. 38". Sdlg. 1-65-2. Neglecta with light blue standards (RHS 97C) and medium violet falls (89B). Yellow beard. Beautiful stalks with four branches and nine buds. Large flowers with wide flat hafts. Makes a very impressive clump. Strong grower. (Snow Flurry x Whole Cloth) X Indiglow.\$25.00

TREND (W. Newhard '69). EM. 11". Sdlg. 716-1. The green standard dwarf seen by the NEMIS tour of this garden in 1967. Standards sky green (RHS 146D). Falls are olive (152B) with a violet-blue beard. Vigorous and floriferous. Zing X Grace Note. HC '67.\$6.00

PALETTE GARDENS

26 West Zion Hill Road

Quakertown, Penna. 18951

ANNOUNCEMENTS

Be sure to notify the Secretary if you change address.

TREASURER'S REPORT

One typographical error in treasurer's report. The figure just above the page number 127 (January, 1969 Bulletin) should be \$4,969.71.

SCIENCE FOR THE AIRPLANE PASSENGER

Elizabeth Armstrong Wood. Houghton Mifflin Company, 1968.

Bee Warburton

Irisarians write books about other things than irises; and irisarians fly back and forth across the country and are curious about what's happening and about what they see out of the plane's windows. Coincidence struck me on my way to convention headquarters from my plane last April, and I remarked to Betty Wood that somebody ought to write a book about it; and Betty answered "I just did!"

Betty, whose husband Ira (Sandy) is an AIS Director and who is herself the current RVP of Region 19, is a physicist who recently, with her husband, retired from Bell Laboratories. She is well qualified in the required science; the happy thing is her command of clear and entertaining prose, and her practical approach which furnished the book with instructions for do-it-yourself investigation, plus a measuring device printed on the back cover. A great travel companion for curious adults or adults with curious kids.

A LONGER BLOOMING SEASON?

Are you interested in knowing how to extend your flower season? Join the reblooming Iris Society and receive *The Reblooming Iris Reporter* which will tell you how to have irises in bloom every freeze-free month of the year. Only \$3.00 a year for AIS members! Send your check (and advise expiration date of your AIS membership) to Dr. Clarence P. Denman, Secretary-Treasurer. Reblooming Iris Society, 4214 Calmont Avenue, Fort Worth, Texas 76107. (The Reblooming Iris Society is a Section of The American Iris Society. All members must be members of AIS, and expiration dates of membership must coincide. Membership in AIS is only \$5.00. If not already a member of AIS, join both by sending \$8.00 to The American Iris Society, 2315 Tower Grove Ave., St. Louis, Missouri 63110.)

OFFICERS OF THE REBLOOMING IRIS SOCIETY

President: Dr. Lloyd Zurbrigg, 903 Tyler Avenue, Radford, Va. 24141

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1968 INTRODUCTIONS

These 1968 introductions were inadvertently left out of the 1968 book.

LILLI-KAFFAI (Myrtle Wolff, SDB, R. 1965). Wolff-Hildenbrandt 1968

NEW DEW (Wolff-Hildenbrandt, BB, R. 1966). Wolff-Hildenbrandt 1968

TEBBY DARE (Myrtle Wolff, SDB, R. 1966). Wolff-Hildenbrandt 1968

TOWER GROVE (Myrtle Wolff, SDB, R. 1966). Wolff-Hildenbrandt 1968

VEILED PROPHET (Myrtle Wolff, BB, R. 1966). Wolff-Hildenbrandt 1968

ATTENTION — HYBRIDIZERS

Hybridizers who have sent seedlings under number for the 1970 convention and have since registered any of these are asked to send this information *immediately* to the Guest Iris Committee, c/o Mrs. H. L. Edwards, 235 Koehl St., Massapequa Park, N. Y. 11762. This also applies to guest irises which have been introduced since sending. It is too easy to overlook some in checking through the *Registration List*, and it might be yours that is missed. Don't let this happen; keep us posted.

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If there is a change in the name of the president of the club, be sure to notify Mr. Varnum, Mr. Benson and the editor of the *Bulletin* at once, so that the proper name and address can appear in the *Bulletin*, and that the *Bulletin* can be mailed to the proper address.

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American Iris Society

NUMBER 194 JULY 1969



MILESTONE

Plough '65

(Photo courtesy Schreiners)

THE BULLETIN

of the

AMERICAN IRIS SOCIETY

No. 194

July 1969

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The *Bulletin* is published quarterly by The American Iris Society. Publishing office 2315 Tower Grove Blvd., St. Louis, Mo. 63110. Second-class postage paid at St. Louis, Mo., and at additional mailing offices.

Communications regarding membership in the Society, advertising, and other items of business should be addressed to Mr. Clifford W. Benson, Executive Secretary, 2315 Tower Grove Blvd., St. Louis, Mo. 63110.

Communications regarding editorial matters should be addressed to Mr. J. Arthur Nelson, 3131 North 58th Street, Omaha, Nebr. 68104. For information about membership, advertising rates, and back issues, see sections under ANNOUNCEMENTS.

All copy due in editor's office forty-five days before first of the month of publication.

The *Bulletin* is printed by The Livestock Press, Inc., 2830 "O" Street, Omaha, Nebraska 68107.

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From The President's Desk

AIS is on the move in 1969! Let no one make you believe that AIS interest is waning. I have this year already attended regional meetings in Worcester, Massachusetts (Region 1); Baltimore, Maryland (Region 4); and Memphis, Tennessee (Region 7). The enthusiastic responses in those regions have been heart-warming, especially when we talked about the Membership and the Youth Programs. And then came the Milwaukee Convention! Each year I think the national meet gets better. And this one in 1969 has to be "the most"! Clarence Protzmann and his staff have the warm thanks of all AIS for a truly great convention! "Rampant enthusiasm" describes the entire meet in two words!

We continue to stress adequacy of communication, for this is a basic ingredient for progress within any organization. The Directors and the RVPs need to hear from me often, and I from them. The Affiliated Sections and Local Societies (and the unaffiliated ones, as well) should be in direct contact with the national officers. The individual members ought to be in easy communication with the RVP, the Board of Directors, and me. I believe if each of us will do his part in assuring adequate and effective communication within AIS, many of our problems will quickly be satisfactorily concluded.

We have said much about enrolling new members in AIS, and this is of vital importance. But what have we gained if we also lose a member through non-renewal for each new one we get? We need to cut down to absolute bedrock our non-renewals! First of all, we should give each of our members a part in the "action." Give them something to do, so they will feel that they belong! Enroll them in a Robin. Get them to competing in your iris show (if you don't normally have one, get one started!). Go to see their gardens. Show them how to cross-pollinate! (If a member ever blooms his first seedling, he will almost without exception continue as a member.) If we will all really work at it, I know we can reduce our percentage of dropouts. In 1968 we added approximately 17% to AIS in new members, but we lost approximately 13% during the same period. This left us with a 3.7% increase in membership. Our goal in membership at 1 October 1969 is 8,000 AIS members. If we can raise the 1968 new membership percentage by 6% and lower the dropout percentage by 6%, our net increase would be 16%—and this would give us 8,000 members. This is not an impossible dream, if we will buckle down to the job and **DO** it!

NEW YORK 1970

WICHITA 1971

RED IRISES AND CYANIDIN

Peter Werckmeister

Translated by Ursula McHardy

In the AIS *Bulletin* 191 of October 1968 we find many contributions dealing with tall bearded "reds." In these, nearly all important varieties, starting with such older hybrids as DOMINION and MORNING SPLENDOR, and continuing with the famous names of their time, are being mentioned and commented on in such a way as to give a good survey of all varieties belonging to the class. But above all, they give us an idea about the hopes and work which led to the present state of development. In all these articles there is room for doubt concerning some varieties: "How could that be called red!", so that it becomes clear how intuition comes prior to actual achievement and how it is left to the individual to draw the line between red and brown.

Furthermore, not one of the names of the famous breeders is missing, which shows us how much work has been dedicated to the aim of breeding a red iris. It began with Bliss! But Bliss was one of those able gardeners who used the scientific knowledge of his time fully in his considerations which were the foundation of all his breeding work. His lecture at the Paris Conference of 1922 must still inspire the present day reader with respect.

His DOMINION for him was a tetraploid iris, just as De Vries' *Oenothera lamarckiana gigas* was for De Vries, even though it could be that only in his mind's eye. It was a speculation which arose by comparison with neighbouring plants which were weaker in growth, smaller in foliage and size of bloom. But for the breeder such considerations are necessary even though, as at that time, there is no way to prove them. Yet we have to admire especially Bliss' speculation, as the series of cytological examinations by Delauney, Longley and Simonet began but in 1928, several years later. When this prophetic assumption was later found to be true and DOMINION was shown in fact to be tetraploid, the thought of it as a speculation for breeding was already present. Today we do not wonder any more at all this, since thinking along these lines has become common practice among all breeders of irises, but at the time of Bliss it was exciting.

It was similar at that time regarding "pink" and "red" irises. Following the first anthocyanin examinations of Willstaetter and Robinson, Rose Scott-Moncrieff began with her research of colour heredity with *Primula sinensis* and Bliss knew of her work. Bliss knew therefore what he said when he spoke of *red* and *pink*. We have to remember today that the hybrid QUEEN OF MAY was considered to be the first "pink" iris. We still find her in some historically oriented iris collections. The varieties SUSAN BLISS and RHEINGAUPERLE from Goos & Koenemann were also considered to be pink irises. Today we are calling that tone of colour orchid. It was however then believed to be possible to advance from that tone to "pure pink."

But we know that things with the "pink iris" have not developed as it was visualized at that time. In breeding, a selection from lavender-blue to spectrum-blue was also started, little by little, and it is common knowledge today that our blue irises are more blue than anything present at the be-

ginning. Thus it was thought that little by little it would be possible to remove the last particle of blue, by way of selection, from the tone of colour today called orchid and so advance to "pure pink." This still holds partly good and it is worthwhile to discuss it. But the aim has not been reached to this day. Instead there suddenly appeared a completely new and unexpected mutation in a new carotinoid pigment, the **lycopin**, and the colour we call pink today is due to it. It is clear to all that more often we should call it salmon rather than pink. And yet on a purely speculative basis we can today expect a true "rose-pink" as well as a "true red!" This we know, but these colours would have to evolve from the anthocyanin pigment **cyanidin**. We are absolutely entitled to expect the appropriate pigment as a mutation, even if this is for the time being a speculation. For this reason it is worthwhile to discuss it and to see what we know and what we do not know about it.

Now and then in the *AIS Bulletins* we read about the "true red" colour and the red which is more of a "brown," starting with those obviously brown irises as JEAN CAYEUX or BRYCE CANYON which also play a part in this development. Much is said about anthocyanins, their copigments, and the part of the carotinoids. But in nearly all of it we miss the "finishing touch." Nevertheless it is possible to state at least a few conditions for the creation of a colour out of a pigment. With the knowledge we have today, we can say fairly exactly what must be done in order to obtain a "truly red" iris. Even more, we can say what kind of mutation we must look for to reach our aim. Comparing the way of colour development in other garden flowers it is moreover not improbable that one day we shall see a "rose-pink" or "true red" iris.

But I think of the breeders, or better, of all the many amateur breeders who are occupied making crosses and raising seedlings. One cannot assume that they themselves will be able to carry out pigment examinations. It is more likely they will look for such beauty in their iris seedlings which will enable them to have a chance in present-day competition. However, one can predict with great certainty that the first, possibly chance, mutations with the appropriate pigments will not be so very beautiful, and that in the first instance they will with great probability not be able to stand competition. It would be a great pity if for that reason they were to be lost. It will therefore depend on the breeder's ability to recognize the "unusual" in his seedling and its colour, be the seedling to begin with "an ugly duckling." To those who need an encouraging pat on the shoulder in order to examine it closer, I call the varieties SPINDRIFT or PROGENITOR to mind. Weren't they "ugly ducklings?" And what wonderful swans have they become today! One can say without hesitation that it took courage not to throw SPINDRIFT and PROGENITOR onto the compost heap, but to effect crosses with them and their progeny over many generations. We can only hope that the breeder in whose garden the first to-be-expected pigment mutation happens, will lack neither courage nor, above all, the breeder's intuition to recognize the new in order that it may lead to the realization of the offered possibilities which only nature can give us.

In the following let us speculate as to how this offer could look like, since the breeder, like Bliss, will only be able to guess that he is confronted with a useful mutation, in our case with a pigment mutation. He will only be

able to obtain certainty that his feeling has not betrayed him by consulting a specialist who will examine his seedling, just as it needed a specialist, a cytologist, to ascertain whether in fact DOMINION was a tetraploid iris. But as there are iris societies all over the world it will be less difficult today, and everywhere someone can be found who is able to examine anthocyanin pigments chromatographically.

The main pigment of all the tall bearded irises which is responsible for the colour-range from blue to red is **violandin**, an anthocyanin which is present in garden irises as well as in pansies and which is a glycoside of the anthocyanidin **delphinidin**. This anthocyanin in recent years has been thoroughly examined chemically by Hayashi and his collaborators. It is a delphinidin-triglycoside which contains in a 3-position p-cumaroyl-rutinoside (glucose-rhamnose-p-cumaric acid) and in a 5-position one molecule of glucose. Further were found as by-anthocyanins tulipandin (delphinidin-3-rhamnoglucoside), delphinidin-3,5-diglucoside and the two 3- and 5- monoglucosides. Still in the thirties Cayeux introduced the hybrid FLORIDOR which caught my attention because of its dove-blue colour at the time I began my anthocyanin researches. It is diploid and it is easy to raise segregating families if crossed with other diploid varieties. It also appeared that it contained a further delphinidin pigment, the **floridandin**. This then appeared for Cayeux as a mutation and it so happened that it was recessive and showed a simple Mendelian ratio. It was easy to class the segregating progeny into **violandin**-plants and **floridandin**-plants, due to the dove-blue colour and, even more, after the chromatographic examinations. True, floridandin plants are not red but dove-blue, but they are without doubt a garden mutation which originated in Cayeux' garden and with which one can work in breeding. Thus it is no vain speculation to assume that in the course of time further pigment mutations will arise with garden irises. But we must not expect great progress in colour variations from delphinidin pigments. We must look for different mutations. With the knowledge that we have today patience is required, because even though we know how to induce artificial mutations, we cannot predict if the colour mutations we are looking for will be among them.

Let us then look at other garden plants. With all garden plants which come in a great variety of colours we find today an extensive colour-range which was not present in the original species. Mostly this has happened through mutation. These mutations sprang from recessive factors, which, in consequence, were visible but in a homozygous condition and the breeding program which facilitated spotting it was consequently a time-taking line-breeding. This line-breeding is common practice with irises today and for that reason we can expect to find many more mutations in coming years with reasonable certainty. This does not mean that all of them will be colour mutations, but we can expect them as well. Now there exists an affinity between the direction of a mutation and a new chemical substance: The direction of mutation leads in most cases to a chemically simpler molecule. In our case, when observing the chemical constitution of the anthocyanidins closer, it means, that it leads from **delphinidin** by way of **cyanidin** to the **pelargonidin**. Each equals a step in mutation and leads to the loss of one hydroxyl-group per step within the anthocyanidin molecule. This direction in mutation for the anthocyanidins can be observed with many

garden plants, and is equally probable with irises. The reversed direction in mutation is somewhat improbable and that is why there exists no blue tulip and no blue rose, since this way of mutation leads to red colours.

Therefore it lies within our rights to speculate on the assumption that some day, somewhere, we will find that kind of anthocyanidin mutation and that it will lead us to an iris blossom which we will more happily call red than we can do with any iris to date. For our red irises are delphinidin flowers and there exist few of those which are unquestionably red. As an example, I should like to mention from my own anthocyanin studies, *Linum grandiflorum rubrum* and the red varieties of *Primula obconica*.

The greatest number of delphinidin flowers are blue or violet, at best, purple. However, if we take the extract from a delphinidin flower and treat it with hydrochloric acid we obtain the red colour which at best can be expected from the delphinidin flowers. It becomes also obvious that that is the red which our irises never excel, which they never even reach! But we also see without difficulty that where cyanidin flowers and pelargonidin flowers are concerned, it is not so. From these one can expect progress in the red colours. Thus we can confidently say: Progress in red with irises can only be achieved through a pigment mutation which produces a **cyanidin** pigment and in no other way.

Is this probable? Well, comparison with other garden plants leaves room for hope in that direction. Above all it is the pansy which, in this, becomes interesting. It also contains **violandin**. In the course of time there have appeared pigment mutations with pansies leading to garden hybrids which, by comparison, are superior to any red iris. Seed catalogues, in euphemistic enthusiasms even call them scarlet. True, they are often brown but still more red than red irises, and the novelty is: Cyanidin pigments are responsible for their colour! Still one more common factor of pansies and irises is encouraging: Both show lycopin mutations which, as a rule are extremely rare among garden flowers. With *Viola* they are however not pink, but more of an orange, since they contain a number of carotinoids. Perhaps one could breed *Viola* as pink as a pink iris, but that does not occupy us here. But the speculation remains: A mutation which happened with *Viola* should be able to happen with irises, the more so, since already both have one in common.

Now red irises are not as red as they should be, even though we claim no more from them than can be claimed from a delphinidin flower, they are more of a brown colour. This brown colour means that their colour in the red or yellowish red to yellow range has a great percentage of grey. It is an "overlaid" colour. This "overlaying" of a pure tone of colour is, to give it a name, a "pollution." Therefore we have to assume that other components are involved which we will call copigments. Two of them are known chemically. One is the **mangiferin** which has been described by me to be a fluorescent orange pigment when observed on the chromatogram under ultra-violet rays, and which has been identified by Bate-Smith and Harborne. The most important copigments however stem from irigenin, of which **iridin** is the most common. It becomes strikingly clear on observation on the chromatogram that these copigments are to be found in great quantity with blue and dull blue irises. The duller the blue in an iris the more copigments does she contain. But even when only blue and red are

being compared, the differences are remarkable. A beautiful blue iris, such as JANE PHILLIPS, contains little anthocyanin and many copigments; a red variety, above all an older diploid variety such as IMPERATOR, contains much anthocyanin and few copigments. But if we generalize here we must not deceive ourselves, for we do not know what happens within the cell sap, chemically and physically. There, larger molecules are being formed leading to colloidal solutions of greater viscosity, complexes of metal-ions are being formed and a number of other things. To try to ascribe here every finer distinction to a definite constellation is not feasible with the knowledge of today. But we can nevertheless assume that progress from muddy blue to our present pure blue colours has gone via definite constellations which have eliminated the colouring properties of the copigments. For, given chemically and physically the right conditions, it can be proven that these copigments change their colour from "colourless" to yellow, and that is why the condition in which they are to be found in the cell sap is surely of great influence concerning the colour. Thus it will also be possible to select in the red colour range between red and "brown" and to achieve greater purity of colour. But we cannot expect progress with the spectrum red.

Yet it is striking that nature herself has not tried this step within the Genus *Iris*, especially in the case of *Iris fulva* where it could have been expected in the play of trial and error. *Iris fulva* is, as Vogel has lately shown, due to her anatomical structure a colibri-flower. The construction of the nectary above all, makes it evident. No more details are necessary here but just a few which are of interest for our case: Nor is *Iris fulva* a "truly red" flower. She contains neither cyanidin nor pelargonidin. But a great many typical colibri-flowers are in no way scarlet, and in California humming birds have been observed even on *Iris douglasiana* which is not a colibri-flower. But there can be no doubt that the scarlet colour is due to the pelargonidin (the betanins which affect the luminous colors with cacti are of a different evolution process.). *Iris fulva* contains delphinidin and malvidin, no cyanidin and no pelargonidin, and so it has to make do with the "red" which delphinidin and malvidin in combination with carotinoids make possible. One can see that humming birds, just as ourselves, accept it for the time being. Could be that they, just as ourselves, depict *Iris fulva* in their conversations as being red.

But *Iris fulva* is an apogon and with them there exists next to delphinidin another pigment called **malvidin**, the best known representative of which in the Genus *Iris* is the **ensatin** of *Iris kaempferi* which has been made known by Hayashi. Here another anthocyanidin molecule comes to our notice which differs from a delphinidin molecule by possessing two methoxy-groups. A recessive mutation would here again lead to delphinidin, but just as well to petunidin and paeonidin. We will not go further into that here, but let us consider at this point one other possibility of breeding in a way of speculation, that of crossing different species with different pigments. This has been done often and with success. Lately that method has given us red delphiniums. Of these let us examine one especially informative case, the cross of the scarlet *Delphinium cardinale* with the flavone-pigmented yellow *D. zalil*, which resulted in the hybrid *Delphinium carzal*. It is rose-red and contains cyanidin. Where does it come from? Surely it is due to

the close biochemical relation between flavonoids and anthocyanidins. The flavone which corresponds to the cyanidin is the **quercetin**, and one can to some effect assume that the cross pelargonidin x quercetin has led to cyanidin, ergo to a rose-red Delphinium, which does not exist among the Delphinium species in nature. Be it that it is in reality a more complicated story with the numerous different flavonoids in the Delphinium species, we can hold fast that new anthocyanidins can be brought into a garden flower by crosses, and also by crosses of species in which in the first instance unnoticeable flavonoids have caused the chemical constitution of the unexpected anthocyanidins. This was certainly the case with our scarlet garden roses where varieties like 'Baccarat' contain next to the cyanidin pelargonidin, while 'Super Star' is certainly a pelargonidin flower. To date there are no known scarlet wild roses which contain **pelargonidin**, so that the appearance of the pelargonidin can be traced back to the in-crossing of the yellow flavonol **kaempferol** corresponding chemically to **pelargonidin**. Only here it took longer until it appeared in the first polyantha roses, presumably because the chemically simpler molecule of pelargonidin was recessive in opposition to cyanidin. With roses, however, this would be hard to prove.

So crossing of species can lead to new colours also, a bit more difficult here, of course, since also in such crosses a long line-breeding must follow until the recessive colors become visible. For that reason we will have to look for different anthocyanidins among the species. As already mentioned we found malvidin with the apogons. It cannot be said with any great certainty, but the larger molecule of the malvidin could cause greater variation in mutational progress. Though here also it will lead to the simpler molecule which for us means in the direction of red colours. I found malvidin in oncocycli if not so far in their hybrids. What will happen with the arils we cannot, even speculatively, predict. But perhaps here too there will, some day, a larger variation scale in colour pigments be possible, even though we have a long way to go.

Concluding, let us think of all the many breeders who have to rely on their "breeder's eyes" and on nothing else. Chemical examination can be effected only with a limited number of seedlings and blooms. Let me stress again that it is imperative first to spot a cyanidin mutation with the eye. The least that one can do when a seedling seems strange in its colour is to pose oneself the question: "Have I to do with a pigment mutation, or is it a colour which varies only a little from colours known to me and which can thus be grouped into the already known?" For the idea that an iris which differs essentially in its pink or red colouring from the known, can be bred out of the present pink or red, even slowly and gradually, that idea should be abolished irrevocably. A real red or rose-pink iris can evolve out of something quite different. It doesn't have to, but it can! What delphinidin colours we know today have probably been exhausted to a great extent. Here we can hope for only a few colour variations by eliminating copigments or through other combinations of the carotinoids (lycopin). The expected great subversion in red and pink colours, if it comes at all, will be due to **cyanidin**. And this we have to track and, above all, to recognize when it appears. It can happen just as well with plicatas as with any other type subject to long line-breeding, and it can absolutely

be dirty or dull, when first it appears. It can appear in blossoms which contain alongside it delphinidin, just as it is in the case with *Viola*. Nevertheless, it will be remarkable, though maybe not by its luminosity or by its beauty. FLORIDOR also has caught my eye at the first moment and I can spot all seedlings from crosses with FLORIDOR at once. It is a dull blue, this dove-blue, but it differs from any other dull blue iris. Once we suspect a seedling of containing cyanidin, then there is nothing else for it but to *obtain certainty*. It will be recessive, and to work on suspicion is senseless. It happened with all garden plants that way; why should it not be possible with the garden iris? True, the real work in breeding will then only begin and before anyone loses faith, let him think of SPINDRIFT and PROGENITOR!

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ERROR

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STUPID ERROR!!!

We made a silly mistake in our ad in the April 1969 Bulletin on page 29. The iris BRAMBLE QUEEN has already been introduced. That part of the ad should read:

CONTRABAND DAYS (Marvin Granger). Louisiana iris. New color—in shades of rose, pink and yellow. (And we might add that it is blooming as we write this ad and is really something! Quite a different color for Louisiana iris and a very good flower and stem.)NET 15.00

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A PROVEN METHOD OF GROWING IRISES

James S. Tucker

Iris culture seems to be the universal topic of conversation among iris growers. The adoption of new ideas and approaches is entered into reluctantly. The gardening procedures of our grandparents seem to have a halo about them and are too frequently followed. On the other hand, untried procedures are bandied about and tried, often with disastrous results.

About fifteen years ago two large iris beds were prepared according to the best procedures of the time (still widely recommended), set with expensive irises, and resulted in a 50% first-year loss. This offended the pocketbook, and my pride as a life scientist. A search of the literature revealed nothing but conflicting ideas, many of them based on outdated concepts or inadequate testing. What research had been done was inadequate, too limited, and often had some far out conclusion drawn.

It was decided to review the problem from an agricultural aspect, utilizing the latest knowledge of plant anatomy, plant physiology, and horticultural practices.

As a result of the review, a series of long-range experiments was planned so that any favorable results would be the basis of further experiments. The plan was flexible enough to incorporate any new knowledge from acceptable sources.

It is the intent of this article to outline the cultural procedures that evolved from these experiments. All of the experiments were carried out strictly for our own information. About 50,000 rhizomes are grown using these methods.

Display Bed Preparation

Drainage, of course, is essential. Beds should be raised so that after compaction the slope is about one inch to the foot, more in some cases. Provision must be made to get the water away from around the beds by the use of grass waterways, ditches, or tile. Grass waterways seem to be the best answer. A truck load of good dirt on the bed will often help solve many iris growing problems.

The use of materials such as stone, 2" x 6" boards, brick, etc., to outline and hold a bed resulted in bogs and a high rate of losses from several basic causes. Elevated beds as above are not used.

Limestone is applied to bring the minimum pH to 6.3, slightly acid. It also tends to make the soil more friable. 12-12-12 is applied, two pounds to 100 sq. ft. Granular Seaborn, organic trace elements in granular form, is added at the rate of 2 lbs. per 100 sq. ft.

If the bed is low in humus, it can be added in a number of different ways. Peat moss is a quick but rather expensive expedient, and can be cut in after spreading to a depth of three inches. If a bed is set up a year in advance, a crop of rye grown and cut in helps. Old straw, cut in with a rototiller, rots away in a few months if given an extra application of 12-12-12. Straw also gives a good crop of weeds and possibly some undesirable organisms. If time is not available for these methods, the beds are prepared, holes are dug 18" in diameter and 8" deep, filled with a nursery mix and settled with water.

Nursery Mix

1 wheelbarrow building sand
1 wheelbarrow loam or sandy clay
1 wheelbarrow peat moss
1 cup 12-12-12
2 cups limestone (agricultural)
1 cup granulated Seaborn
Mix thoroughly with fork, tiller, or shredder.

Planting

The earlier dormancy can be broken the better; this varies vastly among varieties. Leaves of transplants are either left on or cut off, as is convenient. Those with tops left on (on local transplants) seem to resume growth better than those with the tops cut. However, variable rainfall at time of transplanting makes the studies on this questionable. Leaves are cut (only in transplants) for convenience in handling.

Clumps are set four feet apart in display beds to facilitate tilling, examination, and hybridizing. Beds are usually remade after three years.

The best time for planting is July and August. Earlier planting can be done successfully. In fact, irises have been planted from thaw-out to freeze-up. However, poor plants and heavy losses can be expected from plants put in after the middle of September in the Middle West.

Plants are set about one inch below the surface of the ground, in mud, made with a "watering in solution" composed of the following:

1 gallon of water
1 tablespoon soluble 20-20-20
1 tablespoon liquid organic trace elements (Seaborn)

Soil is pressed around the rhizome. The entire bed is wet down with two inches of water, sprayed on, to settle it. As soon as the bed dries enough to get into, it is smoothed out and each plant checked to be sure it does not have a pond of its own. Immediately, two or three inches of fresh sawdust mulch is applied. The entire bed is given a chemical spray.

Mulching

Elaborate, detailed, and lengthy experiments have been conducted on mulching. This is not a new or original idea, by any means. The only questions on this are what, when, and how much.

Fresh hardwood sawdust (oak) is the answer for an all-around mulch. It is used on everything: roses, shrubs, trees, peonies, daylilies, and especially on irises. Ground corncobs, peanut hulls, etc., would serve as well, according to our tests.

First Method

In display beds with irises set four feet apart, the clumps or rhizomes are covered to a depth of two or three inches when planted, and checked in October and again in February to see if they are still covered, and repairs made as necessary. The sawdust extends outward from the clumps about eight inches. In early April, during the spring clean-up of dead leaves, most of the mulch is flipped out or hosed out, but no effort is made to remove all of the mulch. Some is left to keep down grass and weeds and to help conserve moisture during the usual dry periods. The growing rhizomes tend to grow out on top of the decaying mulch during the summer. Therefore, be sure the mulch is away from the growing end of the rhizome four to five weeks before bloom.

Second Method

The second method has much to recommend it, but has drawbacks and limitations that have to be taken into account. Beds are prepared as indicated previously, but the slope is somewhat greater than indicated. Rows are arranged twenty inches apart, rhizomes eight inches apart in the row, the plants are set out, and the entire bed is covered with three inches of fresh sawdust. The bed is wet down with a garden sprayer with the equivalent of two or three inches of water. The regular chemical spray program is followed with the sawdust being given a thorough spraying, as well as the plants. In the spring as soon as the beds of either type can be walked in, a heavy application of 12-12-12 is placed about three inches from the rhizome, after breaking up the sawdust crust and pulling it away with a hoe. The sawdust is roughly respread after fertilizing. About three weeks before bloom season, most of the sawdust is removed from over the rhizomes and pulled aside. All the sawdust is broken up to aid in inhibiting weeds and to conserve moisture. Be sure the mulch is away from the growing end of the rhizome four to five weeks before bloom. The loosened sawdust-mulched beds have a much smaller infection of leaf spot.

The fertilizing and agitation is repeated every three weeks during the growing season if rainfall is regular, or irrigation by spray can be used. Additional sawdust is added the second year in October. Due to overcrowding, all beds have been dug after the second year. Soft rot has rarely been found in these sawdust-mulched beds. Less than .1% loss from all causes has been experienced. First-year bloom has been far above average with second-year bloom somewhat reduced, probably due to insufficient plant food available to the crowded plants. This method permits late-season planting with a minimum loss.

Third Method

Row growing has advantages and limitations. Rows are thrown up, using a large tiller, forty inches apart and four to six inches high. They resemble sweet potato rows. The limestone, fertilizer and trace element are placed before the tiller throws the row. The rhizomes are set about eight inches apart, using the "watering in solution." If rain doesn't fall in ten days, the rows are irrigated to settle them and sawdust mulch applied. The chemical spray program is followed as indicated. Be sure the mulch is removed from the growing end of the rhizome four to five weeks before bloom.

Chemical Spray Program

The question here again is not whether to spray, but what to use and when.

The chemical spray application is made as soon as beds can be cleaned up in April and irises are four inches tall, and every two weeks until bloom season. One or two applications are made after bloom season in June and the final one in late fall. Weather conditions often upset the planned program.

It is not within the scope of this article to discuss why each chemical is used.

The spray formula is one that works and seems to be satisfactory. In general, the recommended amounts given on the packages are followed.

DDT — 50% wettable — twice the amount suggested on the package
Malathion — 50% liquid
Captan or Phaltan
Aureomycin
Spreader — sticker — twice the amount suggested on package
Detergent — 1 teaspoon/gallon
Foliar fertilizer (soluble 20-20-20)
Seaborn liquid organic trace elements

Packaged rose sprays will do as an acceptable substitute for the above, but are rather costly.

Fertilizers

The common belief that the use of fertilizers is detrimental is definitely erroneous. The use of manure increased rot and carried weeds.

12-12-12 is applied lightly (2 tablespoons/clump), scattered a few inches away from the rhizomes, with excellent results. The first application is made in early April, and every three weeks until bloom season. After bloom season, one or two more applications are made before mid-July. If there is not sufficient rainfall to carry the fertilizer down, no more is applied until such happens or the planting is irrigated.

In the beds with rows and in the field growing, 12-12-12 is used at the rate of one pound per 20 feet of row ($\frac{1}{2}$ lb. on each side).

As previously stated, newly prepared plantings are heavily fertilized before the plants are set.

The essence of good fertilizer practice is small amounts frequently applied.

Seedling Procedure

The "row method" is basically used. Seedlings are transplanted during and after bloom season to the wide rows, using the "watering in solution." The flat top of the row is covered with about $\frac{3}{4}$ " of sawdust, but keeping the sawdust about one inch away from the seedling. In October two to three inches of sawdust are added and after that treated as in the row method.

SUMMARY

The procedure may seem complicated, but upon analysis it is relatively simple. Essentially all it consists of is as follows:

1. Sharp drainage, of individual irises and beds
2. Regular Fertilizing
3. Regular spraying
4. Use of mulch, year-round.

The mulch gives clean beds with little effort and reduces losses to a minimum. The spray program is primarily preventive, not curative.

It is suggested that anyone trying the procedure go all the way on a trial bed or rows.

Before you disagree with the basic theories and methods, be sure to read the latest on cellular biology and agricultural procedures. None of the theory is original; the application and procedures may or may not be original. The methods do work.

Much needs to be done in the area of nematodes, viruses, and diseases, both in original research and practical application of the knowledge now available.

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- . . . A Robin program to bring irisarians all over the world into closer touch; to provide an educational and informational activity in all phases of iris interest;
- . . . Programs of Regional and National Activity to encourage participation of all irisarians in promotion of better irises;
- . . . A Youth program to encourage the interest and participation of young people who will be tomorrow's irisarians.
- . . . A Species program dedicated to the study and preservation of species irises;
- . . . A Public Relations program to give wide publicity to irises and their place in American gardens.

These are some of the things AIS is doing for you, to enhance your enjoyment and appreciation of irises. It is *your* Society. What AIS membership means to you is determined largely by the extent of your participation in its activities.

The Rainbow Trail in California---1969

as taken by Elsie Mae Nicholson

Apropos Of Excellence. It began in mid-April, with the scent of orange blossoms—a look at the broad-falld creations of Sanford Babson, surrounded by his citrus groves. First, I reaffirmed my memory of R10-16 as *the plicata* (now named ODYSSEY). It is a “long voyage of adventure” into the future of irises—falls so broad and straight from the shoulders that they touch for almost their entire length, and form a flaring saucer of clean white background for the precision placement of the deep violet markings. The blooms have domed standards of the widest of petals, have thick substance like china, and occur on strong, widely branched stalks. This Odyssey, like the Greek one, will take a long time to “reach home”, for it is a slow increaser, but what a future classic to await.

As feminine as ODYSSEY is masculine, is Babson's bicolor “custom made” CHAPEAU ('70), an **Apropos** x **Amethyst Flame** seedling—cream edged white standards, raspberry falls, and lavender beards. But she's a bold lass, large flowered, sturdily stalked.

TAMBOURINE (69), which shook up ohs and ahs among the 1968 conventioners, was seated in full-bodied dignity with metallic sheened robes of gold and red-violet. Another strong yellow with violet bicolor, R68-10, also an **Apropos** seedling, stands taller, waiting in the wings for introduction.

Rows of varicolored **Apropos** seedlings show outstanding vigor and branching and thick substance, but hardly “best” their superb silky lavender parent, who always performs magnificently. Hope that she receives a too-long delayed Award of Merit this time around.

SHIPSHAPE (69) clumps in the Babson garden gave me a repeat thrill of recognizing “par excellence” in its overlapping falld medium blue ruffleness—this big beauty is surely setting sail for a Dykes shore.

A “petite tall” favorite of mine, CONFECTION ('67), now has a taller daughter (R-65-14) to debut soon. Both of these have the Babson “couture” dresses, not to be mistaken for any other creations—blue ruffles with a rosy-pinkish-orchid glow in the heart of the flower.

Paradise In Porterville. In that Mecca for iris bloom trailers, I found William Schortman with another well-substanced and branched blue, SKIES OVER MIAMI, and an orchid-flushed blue, #715, with much ruffling. His HAWAIIAN LOVE CALL ('68) is a well-formed and substanced light violet self. But it was his little border cuties, especially LITTLE SISSIE, that really delighted me. Of his past introductions, I consider the fine formed bright yellow plicata, ECHO ONE ('66), a worthy candidate for higher awards. It has brown freckled shoulders and wins points for the width of its arched falls.

Jim Gibson, the plicata prince, pulled a dark surprise on me. For the past few years, DUSKY DANCER (Luihn '67) has seemed the ultimate in ruffled blacks, and I was happy to see her dance award-wise; but I saw the “penultimate” in Jim's garden, as 157-4A (OPENING NIGHT), a

very tall, vigorous plant with a flower having blacker and more ruffled skirts than **Dancer**. Three huge blooms, widely spaced and held up to the sky, said to me that this iris is a great silhouette flower.

His **APRIL MELODY** ('67) seedlings keep getting broader and more rounded falled, and pinker and pinker in their dottiness. Those who voted an HC for his ruffled, blended tan and reddish plicata, may look for it as **KILT LILT**. It is dancing a Highland Fling so gaily that I could almost hear the bagpipes among the large clumps that sunny afternoon.

My mind filled with memory images of the Gibson genius, I drove southward and westward across the flat, mirage filled valley to Wasco, to be ready for an early morning romp through her seedling rows with Neva Sexton.

Now That's An Experience. Wide branching on tall strong stalks and vigorous plants are everywhere. Superb breeding stock plainly evident. Neva "paints pictures" with a toothpick, describing how "those domed standards" would look on "these rounded falls" and how she'll just "brush a little more brown" onto that flower, and transfer this opaque blue onto that better branched stalk—and really does do the "sleight of hand" hybridizing magic. When she gets the right flower placed on the right stalk, we have another probable Dykes medalist such as the glorious **NEW MOON** ('68). Its seven-inch ruffled flowers, with crimped edges to the wide wide petals, and a self beard in harmony, have great beauty. The slanting sunlight shining through the petals emphasizes the purity of the color.

I was impressed with Neva's heavily substed, tangerine bearded rosy orchid **SPRINGTIME FANTASY** ('69). It showed wide branching, with a possible 12-flowered stalk. Many buds to the socket is a Sexton trademark.

Her ruffled and flared **FIRST SNOW** ('66) rates among the top whites, and her smooth apricot **BEAUTY SECRET** ('66) is passing on its broad falls to more "smoothies" in her seedling patch.

I said hello to a last stalk of **FLIGHT OF ANGELS** ('68) in the Terrell garden, where I had seen that "heavenly white" born just a few years ago. They'll fly to high, high awards, for sure. Noticed a vigorous, ruffled greenish yellow, T63-41 (Royal Tara X Char-Maize) with a very thick greenish beard.

Median Medley At Melrose. Back to Melrose Gardens and shared Sid DuBose's delight with blue beards showing on border seedlings from **Apropos X Grace Note**, and the smooth width of the yellow children (not quite such blue beards) from **Ad Astra X Grace Note**. Earlier I had noted Sid's pinkish well-proportioned IB seedling from **Oriental Baby X Zing**.

Ben Hager's SDB **PEANUTS** ('69) has amused me for some time with its tan suit splashed with peanut brown, and I'm glad he switched the name to this highly appropriate little fellow. There was very good form indeed on his **PUPPET** ('69), a thick substed lavender and mahogany SDB doll. The sheen on SDB **SILKIE** ('69) from **Dark Fairy** has to be seen to be believed. I did and I do.

IBs that "sent me" were **ORIENTAL BABY** (Guenther '64), **JUNE PROM**, (A. Brown '66), **LIGHT CAVALRY** (B. Jones '66) and **TOY SOLDIER** (Burnett '69). Burnett's **ARABI TREASURE** ('62) remains

the standard of excellence for IBs, as does Hager's SHRINKING VIOLET ('66) for MTBs. A border that I hadn't seen before, ROSIE O'TEE (Tucker '64) was a bengalese pleasure. An offspring of the ever-popular part aril Moonchild is Abel's pale violet MOONSHADE ('69), just as pleasing as I had remembered it two years ago in the Terrell garden.

Kaptivated At Keppel's by a fine proportioned plicata IB EARLY EDITION ('70), with dark violet stitching at the hafts on pure white falls, and sporting white beards with a glow of orange hairs in the throat. Style! Earlier, Keith's SDB neglecta FOOTNOTE and his FINE PRINT, '68 introductions, made an excellent twin showing. I enjoyed the yellow amoena SDS SCOT CREAM (Warburton '64) there, as well as the orange-bearded ruffly MERRY SUNLIGHT (B. Jones '66), and especially Joe Gatty's '67 introduction, BUBULA, a MDB, white with dark blue markings at the shoulders.

Of course the bluest band of the iris rainbow is Keppel's BABBLING BROOK ('66). And the thickest blue beard yet is on his blue-violet plicata CHARMED CIRCLE ('69). Keith's wide AIS acquaintanceship is represented with many guest irises. I found TOUCHE (Hamblen '69) "smoking" a bit too much in its blue and pink combination at close range, but a wonderful color break and enough to "fire" one's imagination about the future when seen a few rows away, and a "must have."

Joe Ghio's SEANCE ('69) demonstrated thick substantanced flowers and show stalk branching. Keith and I agreed that the bluish amethyst coloring is somewhat different, and we both could see more red in the falls, suggesting a bitone. Glenn Corlew's rose-pink TRALEE ('69) opened on a fine stalk, a quality flower to sing a song about. His AFFECTION ('69) is a quiet smaller proportioned light peach-pink, out of Signature ('65), that pink-tinted-white child of **Ballerina** and a floriferous favorite of mine that won the Region 14 Cup for the best blooming clump at the spring meet in April.

Keith reports that CHERRY JUBILEE (V. Wood '69) is definitely the best red-bearded white today, confirming the opinion of lots of us who saw it last year in the convention garden in all its fluffy loveliness. I am watching Keith's try for an opaque white (recessive) out of plicata breeding, and feel that he is well on the way to helping those who long for a "modern" **Tranquility**. Ah, but the Keppel cross to watch is his French blue seedlings from **Skywatch X Babbling Brook**. Delicious!

More Magic at Melrose. Looking at TBs, noted Melba Hamblen's orange improvement H63-73A and her advance (H639F) on **Lilac Champagne**. Caught by surprise by TANOLET (Peck '66), a reverse violet amoena with golden tan shoulders, violet bordered falls, and light blue beards that seemed to send an elusive blue cast out toward the edge of the falls (this was not just a "cast" in my eye; five other judges were looking at it at the same time and seeing that blue mystique). Somehow missed DRESS SUIT (Spence '68) last year, a blue and violet-blue neglecta, but can well understand its HC. Elegant.

Ben Hager had a smooth formal black (T 2136) with even darker falls than STUDY IN BLACK, that red-black super-introduction of Gordon Plough.

Interlude At Luihn's. I always enjoy a visit to the well-groomed, care-

fully cultured planting of the Luhn garden. Vi and I noted the differing tints and tones on Walt's '69 offering, LILAC MIST, strong stalked, well branched, and with a thick substantiated ruffled flower. Their blooming rows of CALIENTE ('68) showed this excellent variety in all its dark wine-red floriferousness. It definitely retained its high scoring jotted in last year's notebook. And there was beautiful DUSKY DANCER, swirling her way toward the higher awards.

JUANITA T (Tallant '69), that wide-falled blue seedling T66-26 noted last year, looked even more superb as a "lady." SUNSET SHADOWS (Roe '68), in broad dark violet dress, was exhibiting high quality in both plant and stalk.

Vi is growing a collection of the best current Siberians in the partially shaded corner under a walnut tree, and they make a beautiful display. She's a green-thumbed gal! My attention was caught by the demanding blue, thick and broad petaled EGO, and the ever lovely WHITE SWIRL. Hager's SPARKLING ROSE ('68) and RUBY WINE ('68) both performed well for her last year, and looked fully budded on this early visit.

Fourteeners At Chico. The regional meeting gardens contained several well-blooming clumps of Niswonger's RASPBERRY RIPPLES ('69). I was impressed with its substance and clear cool coloring, as well as wide branching. DECOLLETAGE ('70), reminiscent of **Memphis Lass**, its parent, but far more elegant, was showing well-branched stalks. And his big, busty blend T2621A (**Commentary X Gracie Pfof**), tan, red and violet, with a big blue blaze on the ruffled falls, won the regional Seedling Cup.

Bernice Roe's bicolor SUNSET SKY ('69) was a big bold show in bright yellow standards and purple falls, flushed rose and gold edged. Joe Ghio's CROWNING GLORY ('69) showed its horizontally flared medium blue falled skirt under a rounded white, blue flushed blouse of standards on a strong well-branched stalk. Refreshing to see most of the lavender washed away from a "blue" amoena. Also noted the subdued bluish beard and liked its "fashion."

In My Own Backyard. Most perfect flower: NEW MOON. Most floriferous clump: SIGNATURE. Best show stalk: SOUTHERN COMFORT.

The first big saucer bloom of CUP RACE (Buttrick '63) astounded me with its size, thick substance and white whiteness. Scant distribution must be the only reason it took so long to win awards. This judge was won at first sight. CANARY CADENCE (Gaskill '67), more ruffled than ROYAL GOLD (Hamblen '66), just as unfading under our hot sky, more yellow than gold, and winning points for finer form and longer lasting (4 and 5 days) flowers.

SKYWATCH (C. Benson '64) stood tall and strong with those blue-lavender 8" blooms of unsurpassed excellence; surely it should wear the Dykes crown, for the "days and days" show of each blossom more than makes up for their relatively few numbers. DREAM TIME (Schreiners '67) with pinkish lavender falls the broadest of any flower in my garden, and ruffled near perfect form of large size, was stylish with its stance on well-branched stalks. AD ASTRA (Babson '67) is a lemon and white bicolor with yellow edging and broad arching falls, and has the Babson

built-in vigor of stem, wide branching and strong healthy fans. It's zooming for higher awards in the iris universe.

LIGHTNING RIDGE (O. Brown '66) with pink sherbet standards, loganberry falls, and thick "hot pepper" beard, is a foretaste of possible mouth-watering color combinations on future irises. **WENATCHEE VALLEY** (Noyd '65) is another thick substantanced mixed sherbet colored blend that is a strong performer. **LAURIE** (Gaulter '65) is the rosy lilac beauty that each of you must surely know about and covet by now. **JILBY** (Gaulter '65), her amethyst violet half sister through **Claudia Rene**, is an even stronger grower and always shows some of the best show stalks in my garden. **CREDO** (Babson '66), a late blooming ruffled maroon, is gorgeous on 3-flowered stalks as I write this. Speaking of show stalks, **SOUTHERN COMFORT** (Hinkle '65) had four creamy blooms out at once on two different stalks. Judging by its performance in this class, it should have an **AM. HIGH ESTEEM** (Tompkins '66) is a broad-bosomed peach-pink of heavy substance, showing **Apple Valley** form, which I always did consider worthy to win beauty contests.

I had a spectrum showing of some 300 of the **Rainbow Goddess'** newest and best behaved progeny, so if I mentioned a "baker's dozen or so" you may believe those names were good, but Good!

Beholding Beardless Beauties. It's May days and time to see the Louisianas, Siberians and spurias at Melrose. Ben Hager has a "high style" introduction for the Siberian world in his intense blue **SWANK** ('69). Thickening the traditional form, lovely color, bronze pattern at the shoulders (from **Blue Cape**), it has substance that matches **EGO**, and a gracefulness that surpasses it. There is a fine display planting of Siberian at the edge of the pond, and long long rows of established varieties in the "back forty", affording me the much needed opportunity to add to my knowledge of this specialty class. Ben has a chalice formed white (SB 8) that has improved branching. The reds seem to be resisting higher bud count and branching in their progeny, as witness the lovely rose mauve large flowered **SPARKLING ROSE**.

In the Louisiana beds I noticed that **CONTRABAND DAYS** (Granger '69), a rose "tritone", faded evenly so that older flowers still look pleasing. Hager has a non-fading yellow, **L19-A** (Dixie Deb X G. W. Holleyman), with an interesting crepy texture, large size and holding substance. It is the only yellow other than "Holleyman" that does not fade in this intense sunlight. **DIAMOND CUT** seemed very thick substantanced and I liked its green center. And deeply attractive **BLACK WIDOW** (MacMillan) was playing around all over the place!

In the spuria display rows I was caught by the beautiful ruffling of Ferguson's **PLENTY OF SUNSHINE**, with that new "compact" look from a shortened claw and very wide petals. **CONNOISSEUR** (Hager '66) has it for size and interesting color—coppery yellow and lavender. Ben has an "almost all white", just a fine yellow midline left on the fall, but says he needs to make it more compact. He has a burnt orange (S292), with large flower, wide petal, two branches and terminal, a spuria impact that will probably be made available next year. But his **MEDIA LUZ**, with grayed blue standards (I even prefer them when they have aged to a pure gray) and cream and lavender "cloisonne" patterned falls, and three

side branches, wins for number of buds. WOODWIND (Hager '68) wins for sheer width of petal and the carmel, brown-veined, coloring. Blue-violet BELISE (Simonet '67) has the farthest carrying power of color and is the most floriferous. Spurias too are expanding their color bands on their particular rainbow; wonderful things are happening with the red-browns started by Ferguson. I must have RED OAK before another year goes by.

—The rainbow is growing dim, the colors dissolving . . . only the memory “afterglow” now from Iris’ passage through central California . . . but what do I see on the northern horizon? . . . band of color . . . growing brighter . . . another rainbow? I’m on my way to Oregon . . . wait for me, Iris!

— MULCHING WITH SAWDUST —

Jeanne Wainwright Price¹

Dr. Wesley P. Judkins²

To mulch means that a natural or artificially applied layer of plant residues or other materials are applied on the surface of the soil. Mulches are generally used to help conserve moisture, control soil temperature, prevent surface compaction or crusting, reduce runoff and erosion, improve soil structure and control weeds.

Common mulching materials include compost, woodchips, straw, excelsior, paper, leaves, plastic, fine brush and fine stones or gravel. These materials are numerous and widely used by gardeners. Leading horticulturists with full realization of gardeners’ expenses and the benefits desired from a mulch have conducted varied experiments using sawdust, which needs no further reduction in size for use and is usable in both the new or decomposed forms. It is less costly in comparison to other mulches, labor saving and beneficial, gardenwise. The use of sawdust is not a new phase of gardening but one that is ages old, for the forests are evidence that the properties and benefits derived through new or decomposed woodland materials afford plantlife many of their qualities.

The use of sawdust in the home garden is significant in that it is equally as beneficial as that of the forest’s natural composts of soft and hardwoods, leaves and branches that have been aerated by stones and rocks, earthworms, and beneficial soil micro-organisms. The same process of decomposing of the material is merely moved from the woodlands into the home garden, and in its decomposed state its blackness and fertility are comparable to the forest’s natural composts. Sawdust is a wood residue with freedom from other compost materials from the woodlands. It may consist of one or more types of dust, or it may be a blend of dusts from the sawing operations of the soft and hardwood trees.

Many gardeners are reluctant to apply sawdust around their plants because they believe certain injurious effects may occur. Tests have shown

¹In collaboration with and with special permission of ²Dr. Wesley Parkhurst Judkins (1949), Professor of Horticulture, Virginia Polytechnic Institute, Blacksburg, Virginia; B. S., Maine (1934); M. S., Ohio State University (1937); Ph.D., Ohio State University (1941).

that the advantages outweigh the disadvantages, and that this material should be used without hesitation in any area where it is obtained readily. The advantages are numerous and, when properly applied at the correct time and to depths needed for soils and certain plant controls, serves many functions. The most important function is the conservation of moisture. Most soils lose a part of the water that falls on them through runoff from the surface, percolation through the soil, evaporation from the surface and transpiration through plants. Much of the gardener's success depends upon keeping these losses to a minimum, except the transpiration from his wanted plant, and on being sure that excess water does not accumulate in the pore spaces of the soil at the expense of the air. It is not the excess water that injures plants in poorly drained soils, but the lack of air. Sawdust readily permits the penetration of water into the soil and checks the full force of precipitation, lessening the danger of surface runoff and permitting the water to sink gently into the soil. Sawdust protects the soil from the drying effects of sun and wind, thus preventing the evaporation of moisture from the soil surface and reducing soil crusting from exposure to intense heat and drought.

Favorable conditions are maintained for good root development and the emergence of the young plant, maintaining more uniform soil temperature. In the summer the soil under the mulch is sometimes 20° F. cooler than surrounding soils, and in winter the soil under a blanket of sawdust retains some of its heat and is warmer than surrounding soil areas. More uniform soil temperatures result in better plant growth, yield of bloom, and in vegetables, superior quality.

Sawdust provides the greatest weed control of any of the known organic mulches, but proper depths must be made in the plots and around the plantings, to reap the full benefits. For shallow rooted flowers, vegetables and berries, a one-inch layer of sawdust will give satisfactory moisture-conserving and soil-cooling effects. Under trees, shrubs, roses and berry bushes, where a permanent mulch is to be maintained, two inches of sawdust will be more effective in controlling weeds and will not have to be renewed as often as a thinner covering. Garden paths may be covered to a greater depth as a weed preventive during the growing months. If weeds are more than one inch tall they should be killed by cultivating before mulch is applied. The sawdust will smother weeds of a lesser height. Some rampant growing weeds will continue to come up through the mulch but they are easily pulled by hand, and they are best released when the soil is moist. Sawdust will not suppress the growth of quack, Johnson or Bermuda grasses, but it will aid the gardener by easier removal of them.

It is not wise to cultivate a mulched garden because this will mix the sawdust with the soil and destroy its value as a mulch. When the soil is stirred, weed seeds are brought to the soil's surface where they will germinate. Therefore, every time a garden is cultivated in the usual way, destruction is made of one crop of weeds only to plant another. Many gardeners use sawdust for the convenience it affords the growers in gathering vegetables, fruits, flowers, and other garden growths, for they can walk on the garden soil immediately after a rain without having to walk on muddy ground.

Sawdust will eventually decompose and will add humic value to the soil.

During the process of decomposing valuable plant nutrients are released which increase the fertility of the soil from the natural humus. In the course of time, soil under a sawdust mulch will resemble woodland soil, and is richly supplied with natural humus resulting from the slow decomposing, just as in the forest. The soil will become crumbly to the touch, dark in color, and have a clean woody smell. After sawdust has served as a mulch it may be incorporated with the soil, making heavy soils become lighter and easier to work, and the light soils have a higher water and nutrient-holding ability, and is of great importance in sandy soils.

There is no conclusive evidence to indicate that sawdust is toxic to plants or contains substances poisonous to them. Research shows there are no known chemicals in either soft or hardwood dusts which would injure plants. Since resin is a gummy material that will not dissolve in water, it will not be absorbed by plant roots. Evidence that resin will not hurt plants is the fact that grafting wax, applied to protect tender plant tissues following the grafting operation, contains resin. Only about two percent resin will be found in pine sawdust, and not being soluble, it could not possibly injure growing plants. Tannins and terpins which might occur in some types of sawdust do not injure plants. The addition of tannin-containing sawdusts to soils has produced normal flowers and crops.

Tests throughout different parts of the country bear out the fact that sawdust does not make the soil acid. Most soils become acid of leaching effects caused by rain water. The final effect of sawdust is to help maintain or increase slightly the alkaline reaction of the soil. Nitrogen deficiency may develop when large amounts of organic materials are mixed with the soil, for the bacteria which decompose the organic matter tie up the soil nitrogen in an unavailable form. Most mulched gardens receiving recommended fertilizer treatments do not need extra nitrogen. A side dressing of nitrate of soda, followed by rain or watering, will quickly correct any nitrogen deficiency noted by the pale green or yellow discoloration of foliage.

A complete fertilizer should be used on a sawdust mulched iris garden, the same as with a cultivated garden. The term "complete" means a fertilizer that has all the parts or elements necessary to give equilibrium and balance to the soil structure. To find the soil's needs, soil tests should be made that will denote any deficiencies that may be balanced by the addition of other elements required to reach the soil pH value desired. Soils vary from area to area and often the soil structure and nutrients will vary from plot to plot or row to row in an iris garden. Due to this, for a complete soil analysis, soil samples should be taken for a composite or single plot testing to best relate the soil's needs.

Most complete fertilizers are either broadcast on tilled land and worked into the top two to three inches of the soil, or they may be applied as many iris growers do, direct to the growing site, since most growers set aside a particular growing area, aside from the general garden. Great care should be exercised to distribute the fertilizer evenly by working the soil or by turning it under by spading. In cases where clumps have not been removed or lifted, it is of utmost importance that no fertilizer comes in contact with the crowns of the plants.

Most bags of fertilizer do not indicate the rates of application but do give

the analysis, denoting the elements therein. For most complete or balanced fertilizers, the following rates of application are recommended: 30 pounds of fertilizer per 1,000 square feet of area or 75 pounds for a 50 x 50 foot garden. For 100 feet of rows or plots 6 pounds of fertilizer will be required. If evidence of nitrogen deficiency appears, apply a side-dressing of 10-10-10 along the edges of the rows or plots at the rate of 2 to 3 pounds per 100 feet of row. If this does not promote the desired rate of growth, the application may be repeated. Most iris growers do not use fertilizers this high in nutrient value direct to the plot, but it is the root system that is to be fed, rather than the area nearer the planting. Iris roots are extensive and often reach great distances to partake of the available nutrients to them.

Some growers prefer to use a nitrogen carrier, such as nitrate of soda or ANL (ammonium nitrate-lime) as a side dressing, as these act more rapidly than complete fertilizers. They should be used at the rate of about 1 pound per 100 feet of row. In extremely dry seasons fertilization should be made by the watering method, meaning the nutrients are applied to the soil and then watered in either by rain or by gentle hosing.

To fertilize plots or rows where the mulch is not to be disturbed by cultivation, the gardener may use a direct method of applying the nutrients where they are deficient. This is also a watering method that makes the nutrients more available to the plants, for their values are released upon application. Example: Obtain a large tub or waterproof barrel. Count the clumps (whether large or small) to be fertilized and for every 2 clumps counted add 1 pint of fertilizer and 1 gallon of water to the tub or barrel. Stir well and often and allow it to stand 24 hours before using. This gives ample time for the granules to settle to the bottom of the container. Without disturbing the sediment, use a half-gallon spray can of the liquid per clump, spraying the liquid in a circle at least 6 to 8 inches from the planting. The remaining undissolved sediments may be left to dry and later applied to the soil.

Many agronomists advocate buying and using fertilizers higher in nutrient content than is needed by the soil and plant but using a lesser amount per application. This not only reduces the overall yearly costs in fertilizing but gives extended coverage of the nutrients for a longer period of time.

Only raised beds or plots should be sawdust mulched because of the moisture-holding qualities of the mulch. Drainage is foremost and highly significant to good iris culture, and where poor drainage is evident, soggy-ness and rot will prevail. The moisture content pertaining to irises may be compared to humans, in that they do not like wet feet but will tolerate a Saturday night bath!

Mulches of either the soft or hardwoods or a blend of both may be used in the iris garden, as well as the cultivated garden; whether they are in a fresh or weathered condition. Used in a fresh condition it will last longer than old sawdust and will have a greater effect on making soils lighter and more retentive of moisture when plowed or worked into the soil. Old sawdust will become humus more rapidly and is less likely to cause nitrogen deficiency.

The depth of a summer mulch for irises is best determined by the depth of the plantings or clumps, for some plantings will invariably be drawn deeper into the soil by their roots. Rhizomes that are exposed to the sun's

rays will welcome less than one-half inch of sawdust over them to prevent loss of stored moisture in them, prevent scalding and causing thickening and burning of delicate plant tissues. The crowns of the rhizomes should never be covered with mulch and it should be kept some distance from them. The purpose of a summer mulch is to keep the rhizome protected from excessive heat and drying effects, for rhizomes require moisture but not soginess. In extreme heat exposed rhizomes have been known to become very toughened, coarse and pithy, and often will take on the greenish coloring similar to that of potatoes that have emerged to the soil line where they are burned by the sun's rays. Few growers realize that a rhizome is a thick horizontal stem underground branching beneath or one resting on the soil's surface, swollen with nutritive matter, which feeds the growing plant. Consequently, this larder of nutritive matter should be given protection against being depleted of its nutrients to assure plants of quality, vigor, and hardiness.

Winter mulch depths may vary with the altitude and area weather conditions and often this is best taken care of by increasing the summer mulch to a greater depth. The time of making winter application or increasing the depth of the mulch is **AFTER** the ground becomes frozen. Its purpose is to keep the ground frozen during the winter months and to maintain a more equable soil temperature to prevent alternate thawing and freezing, thus belching the rhizome from the soil. If a summer mulch has been used this will form the base for the winter mulch and the depth may be increased one-half to one inch over the rhizome area and up to a depth of 3 or 4 inches over the surrounding root area and between clumps. Heavier depths are not recommended, for the soil must be aerated and allowed to breathe at all times.

When spring growth appears the mulch should be removed from the rhizome area to allow sunlight to reach the crown and rhizome. This is easily done as plants are groomed, which is upon first signs of spring growth. The mulch should be pulled back from the plant to a distance of 6 to 8 inches and it may be removed from the plot or left to increase the soil moisture-holding capacity between the plantings. Some gardeners find that with the mulch being left in the plots their bloom-season is somewhat later, due to the soil temperature remaining low. Should the mulch be removed from the plot, it may be used to give greater depth in the walkways or may be reserved for later use in the plots.

After sawdust has been used as a mulch, it can be incorporated with the soil to increase the workability and humic values. In the author's garden a blend of soft and hardwood mulch is used on all areas under cultivation and including walkways. All depths and procedures used are as described above. Due to the amount of increases per planting, per year, it is necessary to lift and make division of the clumps yearly, consequently all plantings are lifted and the mulch is turned under in the plots yearly. This to some gardeners may seem extra work, but the heavy increase and the enlargements of the clumps hampers any spray program for complete coverage of the plant. Garden records and soil tests made over a span of three years shows that by turning under the mulch, it has increased the organic matter from 2.5 to 5.6 point value. Plant increase (per single rhizome) averages 6 to 11 new toes or more, depending on the variety from time of

planting to the following bloom season. In one variety, 19 increases were noted and bloomstalks numbered 16 on this particular plant.

The best source of obtaining sawdust is from a local lumber yard or from a local sawmill where trees are debarked prior to sawing. This assures the buyer that any residues of killing sprays often used prior to logging will have been removed. These killing sprays are often mixed with volatile oils to increase their effectiveness, and if debarking has taken place, there is no danger of having the harmful and injurious sprays appear in mixed form with the sawdust. It is wise to know your sawdust dealer and to relate to him that no sawdust carrying any odor, other than that of the trees themselves, will be acceptable. The buyer can make the simple test of holding a small amount of sawdust in the hand until it becomes warm, as this intensifies the odor of most killing sprays.

It is very unlikely that spray residues will be found in any sawdust unless the source of the supply would be directly from a power right-of-way that has been recently opened. In old standing piles often found in the forests, time, age, weather conditions and decomposing lessen the chances of any harmful or injurious effects that may occur from its use.

There are several factors to be given consideration when buying sawdust. It should be bought by the cubic yard rather than by weight. One cubic yard will provide a one-inch mulch over 324 square feet of area. About 4 cubic yards are needed for a garden 30 feet wide and 40 feet long. A 50 x 50 foot garden will require about 8 cubic yards. If a deeper mulch is required, these amounts must be increased.

From area to area sawdust will vary in cost, but this is chiefly because of the distance it must be hauled and the loading and unloading at its destination. In most instances the sawdust is given freely to the person who will rid the site of the material, and costs are even less when this occurs.

Sawdust does not carry a label for direct use as most garden products do. A gardener must experiment with it to appreciate its garden value. Many adaptations have to be altered to regional differences, the soil, temperature, moisture, season, type of plant and individual and local fertilizer recommendations. It is known through tests that it can be used with complete confidence and with results that are rewarding. From its use the gardener may be assured that all gardening efforts are fully repaid in exceptional growth that is hardy and vigorous, yield of blossoms and plant increase, and building of the soil at costs below expectations.

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PROFILE OF WICHITA IRIS CLUB CONVENTION CITY 1971

Mabel Clare Jendel

1971 is a pivotal year to irisarians—pivotal and important. Pivotal because we are at the turn of half a century of the American Iris Society. Important, because the 1971 Convention will be offered in Wichita, Kansas, a beautiful city in the center of the United States, hosted by the members of the Wichita Area Iris Club, with its one hundred ninety-five local members, of which one hundred thirty-three are AIS members. Wichita proudly waves the membership banner for Region 18 and invites the whole iris world to attend this convention.

Our Wichita Area Iris Club is celebrating its 20th anniversary this year and many of our charter members are still with us. This club puts on two iris shows each year, one of which is the Early Show for our little “fellers”—the dwarfs, standard dwarfs, border, intermediate and oncobreds. Last year there were 335 entries, 54 exhibitors and 1203 visitors. This show is growing in popularity. The second show primarily features tall bearded iris. Last year there were 908 entries, 128 exhibitors and about 5000 visitors. This outstanding show will be on exhibit at our 1971 convention.

The members of our Convention Finance Committee deserve recognition. These amazing persons seem to be inspired by the Wizard of Oz. There is no limit to their creative capabilities and ingenious endeavors. Their convention kitty is overflowing and still they go eagerly on. The local club with its willing and tireless workers have stimulated the Finance Committee with a \$500 grant for 1971.

Our Sunflower state presented to the world two Miss Americas and this abundance of beauty extends into every phase of Kansas living. Wichita, the Jet City, boasts the honor of being the Air Capital of the world. We have come a long way from the wild frontier town where people came with their six-shooters for companions. We are now a dynamic metropolis and a rapidly expanding convention city. With our new and beautiful Civic Cultural Center whose auditorium complex seats over five thousand people, outstanding universities, historic Cow Town, lovely and spacious parks and many churches for all, we feel there will be a tremendous impact of enjoyment for all visitors.

Convention visitors will find an active and entertaining city, but also a restful one. No smog—no smoke, but a peaceful city between two rivers with beautiful gardens and streets lined with shade trees. When the pioneers came to this prairie city with its dust-blown streets, they brought seeds from their precious trees “back home.” These tiny seedlings were distributed to everyone and now our city reflects the lovely “Thy Woods and Templed Hills.”

If my memory brush has painted an inviting picture, and if my Chamber of Commerce ego has excited your imagination, then we will be seeing you all here in Wichita in 1971 for the greatest convention ever held.

SO COME—in SEVENTY-ONE! The iris and we are expecting you.

LEAF SPOT AND OTHER MATTERS

Reuben T. Smith

(Condensed from a Robin Letter, courtesy E. K. Hubbard)

Leaf spot isn't too much to worry about by itself. The main thing is not to let the spots ripen too much before removing the affected part. After it ripens, a rain comes along (or you water) and spreads it to other plants—a kind of spore. Cut off only the damaged part before it gets to the spore stage.

Along with other things, it may be best for you to get a soil test. The use of nitrate of soda, along with weekly sprayings, continuous watering, etc., may be resulting in your irises getting a very high amount of chemicals they don't need and cannot use. Superphosphate is fine, but only twice a year. A good balanced liquid fertilizer is far better once a year. Don't worry too much about dry summers; if you keep a dust mulch, it won't hurt the irises a bit.

I'll bet if you get a soil test you will find a heavy residue of DDT and all these other things. It isn't the concentration of soil chemicals that is so important, but their availability to the plant, which in turn is based on microorganisms in the soil. These vary with the pH.

Without the active soil bacteria (found in all kinds of humus), the plant *cannot* take up the food elements needed for proper growth. The soil may be rich in all these elements, and *still* not be available to the plant. Moisture, active soil bacteria, microorganisms must be there for proper flowering. The better the soil balance, the less trouble you will have with rot or other diseases, bugs or viruses. A well-grown plant seldom is attacked by anything, and to be well grown there must be a soil balance. The one thing I'd like to know is what happens to all those microorganisms if we keep giving them all kinds of chemicals. How can they do any kind of job even if they are only drunk and not dead? Nitrate of soda just doesn't fit in with all that other stuff for your kind of soil . . . humus of some kind, *any kind*, would be better.

Terraclor solution will control leaf spot easily and does not hurt the irises or the soil. Leaf spot is a fungus, so needs a fungicide (preferably not a poison).

Let the irises dry out during August; it won't hurt them a bit. Fact is it will help them so the rhizomes will be harder and better able to withstand freezing. Don't attempt to fertilize without a soil test. Soil out of balance is just about the worst thing one can try to garden in. Nothing but **NOTHING** will ever go right until at least part of the balance is restored.

In your part of Virginia, if I remember right, even within a city block there can be different kinds of soil. So check it out completely, especially the chemical residue. If you want that robust blue-green look, the richest material source is cow manure. Stimulation of microbial population is what does the trick. And if you have to read books, send for Bulletin 509, West Virginia University, Agricultural Experiment Station, Morgantown, W. Va. 26506—plenty good on irises diseases and for free.



Pictured above is the actual signing of the Proclamation, as William T. Bledsoe, President of the American Iris Society, and other Tennessee iris officials look on. From left to right:

Mrs. Bledsoe, wife of President Bledsoe; Mr. Jesse Wills, former president of the American Iris Society, 1943-46; Mrs. Dick Reynolds, President of the Nashville Iris Society; Governor Ellington; Mr. Phillip Williams, President of the Lebanon Iris Society; President Bledsoe, and Mrs. Edgar Green, President of the Lewisburg Iris Society.

IRIS AND POLITICS

Barbara Serdynski

With world affairs, our politicians are more than busy; yet not enough to keep them from recognizing the beauty of the iris. Not only that, but taking time out to do something about it.

On April 20th, 1933, the General Assembly of Tennessee adopted the iris as the official state flower. To bring further honors to the iris, Governor Buford Ellington signed a proclamation in the executive chambers in Nashville, on April 29th, 1969, designating May 1969 as IRIS MONTH IN TENNESSEE, and urged all citizens to participate in events which would assist in promoting the culture and improvement of the iris. Of note is the fact that the American Iris Society had requested that he issue the edict. This would clearly indicate one Bill B. has been hard at work.

Wm. T. Bledsoe, President of AIS, and "our" 'First Lady, Mary Lou, along with presidents of several local societies, drove to Nashville to witness the actual signing of this proclamation.

Senator Gore, also from Tennessee, has introduced a resolution to have the iris declared the national flower. This resolution must surely get our firm support, although we may have to do a bit of fast talking, trying to convince Senator Dirksen to share his favorite marigold with our iris! Perhaps we will have to start our own filibuster. However, this may not be as difficult as it may sound. About a year ago Senator Dirksen purchased a rhizome of the beautiful RETA FRY. This is the lovely yellow

iris hybridized and introduced by Collie Terrell, Wasco, Calif., and named after the Republican National Committeewoman, Reta Fry, also from the Wasco area. The Senator and Mrs. Fry were very close friends and, after her death, it was the Senator's wish that the flower named after his good friend grow in his garden.

MILWAUKEE---1969

One last look at the garden before departing for Milwaukee. Still think that JUST HEAVEN (James '63) was the best stalk and clump I saw this year. On the plane did a reorganization job, for last minute changes in plans had left me without convention writers for this issue. Met Bob Schreiner on the limousine, and the first person to greet us in the hotel was Clarence Protzmann, chairman of the convention. He set the note of friendliness and hospitality that was a distinguishing hallmark of the meeting.

The clan already had started to gather, and the buzzing was broken only by the shock as people learned that Bob Carney had passed away. In the few minutes before the Board meeting, had a chance to visit with Perry Parrish, Ila Crawford, Helen McCaughey, Bob Minnick, Oren Campbell, Rex and Alta Brown, Ralph Johnson, Betty and Ira Wood, and Earl Browder.

The Board meeting was a busy session, mainly designed to open topics for discussion and decision at the fall meeting. Off to dinner with the Hubert Fischers and the Jay Ackermans, and then to the end of the RVP meeting, where four Board members were in attendance. Following that, met Barbara Serdynski, Clarke Cosgrove, Steve Varner, the "bearded" Ben Hager and the "mustachioed" Ken Kidd, and Bruce Richardson, and a great number of other people at the informal get-together. The tone of friendly, informal hospitality pervaded this get-acquainted gathering, and it was fun.

Back to work early the next morning, with reports of officers and committees to the RVPs and section chairmen. It was thrilling to note that AIS now is at an all-time high in membership. Immediately following was another Board meeting, at which a prodigious number of topics were opened for discussion and hopefully to be acted on at the fall meeting in Omaha.

The Wednesday afternoon program was devoted to special interest meetings, and I did manage to get to the aril and the median meetings, both of which I enjoyed.

Wednesday night, "Old Milwaukee Night", again highlighted the friendly hospitality of the hosts. Had a pleasant visit with the Rileys, the Minnicks, and the Browders over the dinner table. Bill Bledsoe's "State of the Society" address was masterful; AIS has an eloquent and dedicated president. After the dinner dropped in on the Milwaukee "Gemuetlichkeit." The music of the German band was catchy, and some of our members displayed unsuspected terpsichorean abilities. I gaped in envy at the knee action of one of the senior citizens.

The alarm clock rang much too early Thursday morning, and we now were off for the garden tours. What one says of one of the private guest

gardens can be said of all six. They all were lovely homes, with well-kept and spacious yards and garden space, and all with a variety of unusual and interesting plants. The first visit was to the Royal Johnsons, a charmingly arranged garden. Many of the guest irises were not yet in bloom, but we were intrigued with Bill Pecks' ELLEN Q, with Roberts' ELFIN ANTIQUE, with Jeffries J-2664-O.T.A., and with the arrangement possibilities of an iris which we read to be NOWETA. The medians were in bloom in profusion, and we were glad to see some that we had not seen before. ELFIN ANTIQUE (Roberts '64) was one we marked, and among the TBs, CLARION ISLAND (Blocher '64) looked good.

Bus captains blow whistles, and we were off to the Boerner Botanical Gardens. Guess our bus was the only one which followed the plan, for we got to view the educational and art exhibit on schedule. This exhibit was superbly displayed, and the individual pieces were of such merit that we went back for another look after the convention was over. We noted that Earl Browder made arrangements for the organization posters to be packed and used for future conventions, and we think the entire exhibit was of such quality that many art galleries in the country would be interested in it as an exhibit. When we met John Voight to congratulate him on the expertise of the display, we found that he already was making plans for a one man show of Robert Reinhardt's wood carvings.

Backing up the display were three handsomely lettered big placards of the awards of the Society, the awards of the Exhibition Committee (and what a colorful display they make) and of the publications of the Society. The lettering was done beautifully. Suggestions for this kind of organization display have been made as early as the Syracuse meeting, but it remained for the organizational abilities and imagination of Earl Browder, Clarence Protzmann and Robert Reinhardt to put it together.

As one moved into the educational features, there were well-worded and colorful displays, all showing careful thought and planning, of the classification of irises, hybridizing, branching, plantings, and tall bearded, median, aril, Japanese, Louisiana, Siberian and spuria irises. Each was so well done that it "deserved "stop and study."

We wish there was space here to discuss each of the art objects and the artists. It was a superb collection, all with the iris motif. There were oil paintings, water color paintings, photographs (both black-and-white and color), iris postage stamps from many countries, wood carvings, ceramics, needlework, painting on wool, arrangements of irises in several media, hooked rugs, pastel drawings, an iris and poem on birch bark, a tea caddy, mosaics in several materials, dishes and a number of other intriguing exhibits, including a jewelry box, a tie clasp and a sweater guard. As an art exhibit, it was very, very good, and we do believe that many garden centers and art galleries would be interested in such an exhibit. The perfection of display spoke volumes for the thought which John Voight and Robert Reinhardt and their committees had given to the assembly and staging. We were so engrossed with it that we had to run for the bus, and off to lunch at the Red Carpet Inn, where we had the delightful company of the Russell Morgans and three of our Wisconsin hosts, Clarence Protzmann, Mrs. George Ney and Fred Jahnke.

Back to the Boerner Gardens, where there were three judging sessions

we would have liked to have attended, but Irene and I went to work on color classification. Having her along beats carrying a color chart.

We will write little of this garden, for another writer will cover it in detail in the October *Bulletin*. But among those we gave a star in the convention booklet were Varner 638, 275 and 5151, PENTHOUSE (Ghio), SEANCE (Ghio '69), Sexton's NEW MOON ('68) and EARTH ANGEL ('60), ELEGANT CHARM (R. Brown '68), DISTANT HILLS (Marsh '65), APRICOT ROYAL (B. Jones '67). Knopf 66-46, Wills' ROUND DANCE and BATTLE HONOR, RASPBERRY RIPPLES (Niswonger), BRISTOL GEM (Leavitt '65), FOCAL POINT (Newhard—an unusual color, a light blend in blued yellow), Peterson's LP 65-10C, Hamblen H-63-101B (a light to full blend, basically yellow mixed with violet), Shoop 64-25 (quite to the red-pink side), BUTTERED POPCORN (Palmer), Schreiner W-902-AA, MISS SALTILLO (Thomas '69), GRAND SPECTATOR (Haney '65), INTOXICATION and COMMAND PERFORMANCE (Schirmer), LUSCIOUS LOVE (Beck '68) and Sheaff 63-58. Every time we passed FLAME AND SAND (Carlson '68), Irene was asked about the color. It is a medley of light orange and violet, in somewhat different proportions than the brown blends, and is an interesting color.

NIGHT HERON (Tucker '67) was blooming profusely, and it and MISS ILLINI (Varner '66) both drew stars in the book, as did NORTHERN AIRE (Goodrick '65), BLUE MILLER (T. Brown '64), LACE VALENTINE (Warburton '65) and TIMMIE TOO (Wolff '62). MAHALO (Ghio '66) looked very good, and on Monday MILESTONE (Plough '65) looked superlative.

Among the arilbreds AMETHYST ACCENT (Kidd) and ESTHER THE QUEEN (Hunt) showed class. Among the smaller ones, LE SABRE and SING AGAIN (Plough '65 and '66), Sheaff 62-21V and 62-21X, COPPERETTE (Schortman '67), DRUMMER BOY and FRISKY (Schreiners '63 and '66), PEN PAL (Mahood '67), TOPSY TURVY (Welch '64), Motsch LB 25-64, TEBBY DARE (Wolff '68), and MOONBLAZE (A. Peterson '64) looked good.

But even though we stayed until Tuesday, large numbers that we wanted to see were still in tight bud.

We must not leave this phase of the convention without expressing our admiration for Whitnall Park and Boerner Botanical Gardens. They show genius, vision and imagination in planning, and meticulous perfection in administration and care. This park and garden alone were worth the trip.

Back to the hotel, and after a hasty dinner, got in on part of the Siberian judging school and a very good program on diseases and insects by Dr. Worf and Dr. Koval of the University of Wisconsin.

Early Friday morning off to the gardens again, the first that of the Robert Reinhardts. The planting and grounds showed the artistic touch of the owners. While few of the TB guest irises were in bloom, we were pleased with Plough's STRANGE MAGIC; and among the little ones, his LITTLE BIT BLUE ('64), and BORDER QUEEN (Vallette '62) and LITTLE BLACKFOOT (M. Reinhardt '67).

The Arthur Blodgett garden was more sheltered and closer to the warming effect of the city, and more of the TBs were in bloom. We viewed with

interest the panorama of color from the raised patio, and it was a delightful view. Among those we liked were NEBRASKA NAVY (Ensminger—we hope that being an admiral in the Nebraska navy did not enter into the decision), MIDWEST MORNING (Gaskill '65), Gibson 12-1 PA, PEBBLES (Tucker '64) and SOUTHERN COMFORT (Hinkle '65). TOMTEBO (Ney '67) was a colorful and snappy brown. The seedling bed looked very good, and we found two Blodgett seedlings we liked: 123-69-29 and 67-19.

Off to lunch at the Bavarian Inn (the food everywhere was plentiful and good—had the pleasant company of the Cooleys, the Varners and the Ackermans), and then to the John Troka garden, which because of its favored location had considerable bloom, and superbly grown irises. Old PIETY looked plenty good, and we gave stars to MULBERRY WINE (Moldovan '66), INTEGRITY (Gaskill '67), K. Miller 65-29M, and we stood in awe at the tremendous branching of PAWNEE PRIDE (Tucker '68). We were very much impressed with color and form of OCTOBER ALE (Schreiner '68); Steve Varner had a good red seedling in 3227.

The Clarence Protzmann garden still was far from peak bloom, and many of the guests we wanted to see still were in tight bud, and his WISCONSIN HERITAGE ('68) sort of stole the show. His MAIDEN MILWAUKEE also is good, and he had a red seedling on Monday, when we revisited the garden, that is plenty good: No. 68-50, ONE DESIRE (Shoop '60) looked without benefit of color chart very red-pink to us. This is one of the convention gardens we would have liked to have visited about a week later.

The last of the convention gardens was that of the Edward Millers, and if we remember correctly, it was in this garden that tremendous stalks of UTAH VALLEY towered over the rest of the planting, and seemed to defy the brash newcomers to take its place. Tompkins' LOVELY LIGHT ('64) looked good, LEORA KATE (Buckes '63), SAPPHIRE FUZZ (Niswonger '67) HIGH COUNTRY (Christensen '64), DARK EDEN (A. Brown '63) and SOARING KITE (J. Nelson '58) all looked good. But again many of the guests were not in bloom.

Saturday morning back to the Boerner Gardens, and then to the zoo (some wag on the bus solemnly cautioned the bus captain to be sure to keep an accurate count), where there was a ceremony in naming a young moose STEPPING OUT. Ate lunch with employees of the Whitnall and Boerner staff, and learned considerable of the operation.

Spent Saturday afternoon at Mitchell Park, another tremendous part of Milwaukee County's impressive park operation. The three domes, designed for three different climate conditions, are fantastic, and are worth going great distances to see. We spent a lot of time in the arid-climate dome, but the others are equally good.

The arrangement show with its special classes was really good, and we were greatly impressed with the quality and quantity of bloom that had been assembled for the horticultural classes.

Back to the hotel to prepare for the banquet. We had some bad moments in the count for the Franklin Cook Memorial Cup, when it turned out that only a single vote separated Jim Tucker's NIGHT HERON and Steve Varner's MISS ILLINI. Bill Bledsoe and I finally wound up count-

ing the votes twice apiece, and then going through the rest of the ballots to see if any votes for either had been overlooked. But the tally was correct, and NIGHT HERON, which had been blooming profusely in nearly every convention garden, won the nod by that single vote. The awards for the year were handed out at the convention, and perhaps the feature was STEPPING OUT, with the Dykes, the Nelson Award, and the top of the Popularity Poll. The new Fred and Barbara Walther Cup was presented for the first time and the winner was Larry Gaulter's LAURIE.

Dr. Clarke Cosgrove was his usual clever self as the banquet speaker, and he had many of us doing double takes on the many edges of his wit.

On this happy note the 1969 convention ended. We liked you, Milwaukee. We too wish that the cool weather had not intimidated so many of the guest irises, but there were a lot to be seen, and the programs were varied and splendid. Anyone who attended all of them was certainly entitled to sleep the sleep of the just for the next week. And we not only learned how to pronounce "Gemuetlichkeit", but also to know the full rich meaning of the word from our Milwaukee hosts.

We stayed over a couple of days, and on Sunday, in the company of Bill Ouweneel and Arlie Payne, visited the Art Center and the Greek Orthodox Church, stirring new architectural concepts. On Monday went back to the Boerner Gardens with the Protzmans, and did color reading on the ones that had come into bloom over the weekend. Lura Roach also was there to get additional notes for the October article on this garden, and Mrs. George Ney and Mrs. Jack Kimber were color reading from R.H.S. Colour Chart, and plan to do the very valuable service of getting exact color readings on each of the irises in the garden.

At the end of a long day, my throat began to tighten in the area of last winter's operation, and in somewhat of a panic, fled back to Omaha, where doctors promptly grounded me. Two results: The projected trip to see Illinois, Indiana and Ohio gardens, and to take part in the twenty-fifth consecutive annual show at Mio, had to be cancelled. And by the time we got to our notes for this article, they were awfully cold, and there surely are some omissions.



Ben Hager and
Dr. Chester Allen

Rholin Cooley and
Dr. L. F. Randolph

Dr. and Mrs. Lloyd
Zurbrigg

(All photos by Jake Scharff)

VORIS IRIS GARDEN INTRODUCES FOR 1969

ELINOR JANE FOUST. One of the largest; well-formed in orange-peach blend. It gives a coral effect on its tall strong stalks that stand in wind and rain\$25.00

Recent Introductions of Excellent Form, Color and Substance.

GILDED HEIRESS. Closed pink-flushed gold standards; gold hafts; orange beard on white falls, with gold border\$25.00

WHIRLING CREAM. As named and a strong grower\$20.00

Charles Wm. Voris, Proprietor

R.D. 2, Watertown, Pa. 17777

FLORENCE AWARDS—1969

TB

- | | |
|---|---------------------------------------|
| I <i>Premio</i> (Pickard) IRISH CHARMER | 9. (Knopf) HI VALUE |
| II <i>Premio</i> (Keppel) DIPLOMACY | 10. (Taylor) LORD WARDEN |
| 3. (Luihn) 64-9 | Best Red (Luihn) 64-9 |
| 4. (Gibson) MARY MADCAP | Best Commercial (Von Martin) 59-FPL 1 |
| 5. (Ensminger) NEBRASKA NAVY | Best Branched (R. Brown) SILVER |
| 6. (Babson) CHARADE | WEDDING |
| 7. (Von Martin) 50-FPL 1 | Most Unusual Color (Keppel) |
| 8. (Von Martin) 60-R (N) 1 | NINEVEH |

SDB

- | | |
|--|---------------------------|
| I <i>Premio</i> (Van Nes) ROTKAEPPCHEN | |
| 2. (B. Jones) CHERRY GARDEN | 3. (A. Brown) SUNNY HEART |

MDB

- | | |
|---|---------------------------|
| I. <i>Premio</i> (Van Nes) MASEN HIMMEL | |
| 2. (A. Brown) IRISH LILT | 3. (A. Brown) APRIL FLIRT |

IB

- | | |
|--|---|
| I. <i>Premio</i> (A. Brown) ARCTIC FANCY | |
| 2. (Van Ness) GERTREURER
COURIER | 3. (Taylor) WIDECOMBE FAIR
BB. 2. (Julander) J24 (4) 9 |

MTB. No awards.

Sea of Stars

\$35.00

(1969)

No. B-163 (Marquesan Skies X B-120)

**No. B-120 is (B-73: Sib to Arctic Flame x Bluebird Blue X
(B-49: May Hall x Fay 56-7)**

A very sturdy lavender blue flower with a large white flush on the falls. This flower has transmitted excellent form and substance to its children. Our most exciting cross in 1968, was this flower crossed with no. 167, which is a sib to Betty Sherrill. Of eighteen seedlings, Orville Fay thought three of them were worth naming if they continued to do as well in succeeding years as they were doing as first year seedlings. I do not know whether it was due to the weather, or some other phenomenon, but most of the seedlings had a beautiful 1/4" border of a deeper color than the rest of the flower. I believe this trait may come from Sea of Stars, as this flower has the border effect on its falls. In 1967, as Mr. David Hall and I were looking at our seedlings, he pointed this out to me "as a good iris". It was only this year, when its first seedlings bloomed, that I realized just how good an iris it is. Has very fertile pollen, also pods easily. Wonderful branching—only medium height, about 26". Stock very limited.

Betty Sherill

\$25.00

(1969)

No. B-172 (Amethyst Flame X Morning Breeze)

This is a large, pale lavender flower. The coloring is most feminine, but its broad falls, heavy substance and vigor of growth are everything one could desire in an iris. Beautifully branched stem has six to seven large blooms. Wonderful pod parent, has pollen occasionally. This is the finest of several beautiful seedlings bloomed from this cross, and other seedlings of this same pedigree have produced some of our most interesting flowers to date. About 32-34" in height.

Katherine Tiffany

\$20.00

(1968)

No. B-152 (Native Dancer x May Hall) X (May Hall x Fay 56-7)

This is a brilliant golden yellow flower, with an attractive white flush on the broad fall. A complete surprise to us, it is a flower which beckons to you. I still recall the first time I saw this bloom—although it was surrounded with several hundred other seedlings, as we came into the seedling garden, this flower stood out in its brilliance. It has one of the best "s" curved stems I have seen on a yellow flower—perfectly branched, with seven to nine buds on each stem. Fertile both ways, about 30" tall.

Chim Chim Cheree

\$20.00

(1968)

No. B-150 (Galilee x Allegiance) X Ellen Manor

Several years ago, we raised approximately 200 Galilee X Allegiance seedlings. From this group only two had the light blue color of Galilee, all the remainder showing the deeper Allegiance coloring. The pod parent of Chim

Chim Cheree was No. 115—one of the two light blue seedlings. Orville Fay tells me this is the bluest blue he has grown—the plant has great vigor, a beautifully branched stem, and over 10 buds per stem. It is the first iris to bloom in our garden, and it is still blooming when the late iris are blooming. Sets seed well, but rarely has pollen.

Supercalifragalistic

\$20.00

(1968)

**No. B-80 (B-59: Sib to Arctic Flame x Bluebird Blue) X
(B-49: May Hall x Fay 56-7)**

A very large orchid pink flower. Good plant, but it is missing one branch so it has only five or six blooms on each stem. Fertile both ways. A spectacular flower when well grown—only wish it had the one lower branch which would make it "expealadocius" too.

Marquesan Skies

\$15.00

(1966)

No. B-81 (Sib to Arctic Flame x Bluebird Blue) X Fleeta

Lavender blue with a very red beard. This cross was made as an attempt for a blue with a red beard. We have come closer to the shade of blue we desire, using Marquesan Skies as a parent, but it has also given us so many other interesting seedlings crossed with other lines, that we have become sidetracked. The flower has very heavy substance, and seems to pass this along to its progeny. Very well branched stem, with seven to eight large flowers, combined with a vigorous healthy plant which multiplies and grows well. Have had compliments on this from areas as diverse as Texas, California and the middle west. About 30" tall. If you use this in your breeding program, suggest you cross it with something with a red beard in its background, as our best things have come from this type of breeding. Fertile both ways.

Because of increased postal rates, the minimum order we can accept is \$20.00; however, we will send your order postpaid, either air-mail special delivery, or special handling, depending on the distance involved.

We recognize that sometimes an iris proves to be a regional performer, so we always include extras, hoping you will find enough pleasure in the iris we send you to make both your purchase and growing effort worthwhile. Be sure to tell us which of our iris you are now growing, if any, so we do not send duplicates to you. Stock of 1969 introductions is very limited, so we cannot send either of them as an extra. Shipment will be made during the latter part of July and early August, unless you specify some other time.

ANN and CLARENCE BLOCHER

336 E. Forest Avenue — Wheaton, Illinois 60187
(312) 668-1991

IMPORTANT

THE AMERICAN IRIS SOCIETY

July 1, 1969

Dear AIS Member:

Each year the terms of office of four members of the Board of Directors expire, and four are elected to take their places. According to the bylaws of the Society, nominations for Directors are made by the Board and presented to all members before August 1 of each year. The Board of Directors, meeting in Milwaukee, Wisconsin, made the following nominations:

Dr. Raymond C. Allen
Mr. William T. Bledsoe

Dr. Clarke Cosgrove
Mr. Robert Schreiner

Each of the nominees has agreed to serve.

According to the bylaws, additional nominations may be made by any twenty-five members, of whom not more than twelve may be from any one Region. Such additional nominations must be mailed on or before September 1 to the Executive Secretary, Mr. Clifford W. Benson, 2315 Tower Grove Avenue, St. Louis, Mo. 63110.

If additional nominations are made in this manner, a ballot on which is listed the names of all nominees will be issued to the membership on or before October 1, and must be returned by the members on or before November 1 to the Executive Secretary.

If there are no nominations in addition to those made by the Board, its nominees will be declared elected and the issuance of a ballot to the membership will be omitted, as provided by the bylaws.

Sincerely
William T. Bledsoe, *President*
The American Iris Society.

AWARDS --- 1969

THE DYKES MEDAL

No variety received the required fifteen percent of the votes cast, and the Board of Directors is being polled on whether or not there will be a supplementary ballot.

THE COOK-LAPHAM BOWL

(Best red iris which has not previously won this award)

Votes Variety and Hybridizer

Votes Variety and Hybridizer

100 WAR LORD (Schreiners)

Runnersup

58 FIREBALL (Schreiners)

24 BERMUDA HIGH

(Tompkins)

45 BANG (Craig)

20 MAIN EVENT (L. Peterson)

THE CLARA B. REES CUP

(Best white iris which has not previously won this award)

68 ARCTIC FURY (C. Benson)

Runnersup

62 PIETY (Branch)

58 FLIGHT OF ANGELS
(Terrell)

59 CUP RACE (Buttrick)

23 CHRISTMAS TIME
(Schreiners)

THE PRESIDENT'S CUP

57 GALA ROSE (A. Blodgett)

Runnersup

44 TOMTEBO (Ney)

22 WISCONSIN HERITAGE
(Protzmann)

27 DESEREE (Miller)

20 MINNESOTA GLITTERS
(Bakke-Messer)

THE FRANKLIN COOK MEMORIAL CUP

42 NIGHT HERON (Tucker)

Runnerup

41 MISS ILLINI (Varner)

THE COOK-DOUGLAS MEDAL

(Standard Dwarf Bearded)

87 BRASSIE (Warburton)

Runnersup

57 EASTER HOLIDAY
(Durrance)

52 GRACE NOTE (Hamblen)

53 SKY BABY (A. Brown)

40 ZING (M. Brizendine)

THE HANS AND JACOB SASS MEDAL

(Intermediate Bearded)

86 LIME RIPPLES (A. Brown)

Runnersup

77 DRUMMER BOY
(Schreiners)

43 CLOUD FLUFF (Greenlee)

74 CUTIE (Schreiners)

35 ARABI TREASURE
(Burnett)

THE KNOWLTON MEDAL

(Border Bearded)

93 BLUE MILLER (T. Brown)

Runnersup

74 PEBBLES (Tucker)

38 FAIRY JEWELS (Hamblen)

71 BAYADERE (O. Brown)

34 TIMMIE TOO (Wolff)

THE AWARD OF MERIT

(Tall Bearded)

<i>Votes</i>	<i>Variety and Hybridizer</i>	<i>Votes</i>	<i>Variety and Hybridizer</i>
252	LAURIE (Gaulter)	121	CUP RACE (Buttrick)
251	BABBLING BROOK (Keppel)	113	GRAND ALLIANCE (Plough)
182	RADIANT APOGEE (Gibson)	110	APROPOS (Babson)
173	FUJI'S MANTLE (Schreiners)	110	SWAHILI (Plough)
143	ROYAL GOLD (Hamblen)	100	MISS ILLINI (Varner)
122	MAY MELODY (Hamblen)	98	MULBERRY WINE (Moldovan)

Runnersup . . . with 65 or more votes

92	DIPLOMACY (Keppel)	75	CAMBODIA (Babson)
91	HIGH LIFE (Schreiners)	74	NIGHT SONG (Luihn)
91	SOUTHERN COMFORT (Hinkle)	70	RETA FRY (Terrell)
88	JEWEL TONE (Schreiners)	68	RADIANT LIGHT (Fay)
85	BRISTOL GEM (Leavitt)	67	DISTANT HILLS (Marsh)
83	CREDO (Babson)	67	EPIC (Babson)
83	MAHALO (Ghio)	66	ORANGE CHARIOT (Fay)
77	LIGHTNING RIDGE (O. Brown)	65	MALACCA STRAITS (Johnson)
76	COUNTY FAIR (Corlew)	65	SUNSITE (Plough)

(Standard Dwarf Bearded)

75	EYE SHADOW (Roberts)	52	GOLD BUTTONS (Hamblen)
57	MARINKA (Dennis)	52	VELVET TOUCH (Dennis)
<i>Runnersup</i>		47	ORANGE CAPER (Warburton)
48	RICKSHAW (Hager)		
47	LENNA M (Roberts)		

(Intermediate Bearded)

61	SING AGAIN (Plough)	52	BEEBOP (Plough)
54	DILLY DILLY (Warburton)		

Runnersup

50	LEMON FLURRY (Muhlestein)	43	ILLIANA (Greenlee)
48	LITTLE BIT BLUE (Plough)		

(Border Bearded)

98	BROWNIE SCOUT (Gaulter)	79	LACE VALENTINE (Warburton)
93	CRYSTAL BAY (B. Jones)		

Runnersup

66	HOB NOB (Hutchings)	64	CARNIVAL GLASS (B. Jones)
65	LITTLE BOWKNOT (Hooker)	64	TOY SHOP (Fay)

THE GAPARNE AWARD

(Miniature Dwarf Bearded)

28 IRISH DOLL (A. Brown)

Runnersup

26 BUMBLE WINGS
(E. Smith)

20 ALREADY (Warburton)

THE G. G. WHITE MEMORIAL AWARD

(Arilbred)

49 BETHLEHEM STAR (Foster)

Runnersup

48 BIG BLACK BUMBLEBEE
(Danielson)

43 SONI CE (L. Peterson)

THE WILLIAM WHITE AWARD

(Arilbred)

213 NINEVEH (Keppel)

Runnersup

25 JAZZ BABY (Noyd)

23 ASPEN COUNTRY
(McClure)

THE MARY SWORDS DEBAILLON AWARD

(Louisiana)

20 KATHERINE L. CORNAY (Arny)

Runnersup

16 PETUNIA BUTTERFLY
(Rix)

11 LADY STORM (Dormon)

THE MORGAN AWARD

(Siberian)

63 VELVET NIGHT (Edwards)

Runnersup

48 EGO (McGarvey)

48 SUPER EGO (McGarvey)

THE ERIC NIES AWARD

(Spuria)

49 CONNOISSEUR (Hager)

Runnersup

22 BARITONE (Ferguson)

16 LYDIA JANE (Walker)

THE WILLIAMSON-WHITE AWARD

(Miniature Tall Bearded)

84 DAINTY DANCER (A. Brown)

Runnersup

37 TOPSY TURVY (Welch)

27 MOCKINGBIRD (Roberts)

THE W. A. PAYNE AWARD

(Japanese)

To be announced in October *Bulletin*.

THE HONORABLE MENTION AWARD

(Tall Bearded)

Votes Variety and Hybridizer

184	FLIGHT OF ANGELS (Terrell)
133	WAR LORD (Schreiners)
133	NEW MOON (Sexton)
109	PINK TAFFETA (Rudolph)
100	WEST COAST (Knopf)
96	TUXEDO (Schreiners)
95	CHERUB CHOIR (Corlew)
93	MATINATA (Schreiners)
91	ROYAL HERITAGE (Luihn)
90	GALA MADRID (L. Peterson)
89	CALIENTE (Luihn)
86	PUNCHLINE (Plough)
70	MARQUESAN SKIES (Blocher)
65	LIGHT FANTASTIC (O. Brown)
65	OCTOBER ALE (Schreiners)
57	STUDY IN BLACK (Plough)
55	FLAME AND SAND (Carlson)
55	TOMTEBO (Ney)
55	TYCOON'S GOLD (Niswonger)
52	GALA ROSE (A. Blodgett)
52	VITAFIRE (Schreiners)
42	POINT CLEAR (Pickard)
41	SAFFRON ROBE (Moldovan)
39	CLOUD CREST (B. Jones)
38	WESTERN HOST (Babson)
36	HOT SPELL (Plough)

Votes Variety and Hybridizer

36	PAWNEE PRIDE (Tucker)
35	QUETTA (Plough)
33	GOLDEN SENSATION (Sexton)
31	APOLLO'S GIFT (R. Blodgett)
31	FIRST SNOW (Sexton)
31	SEVEN LEAGUES (Moldovan)
30	BURNING COALS (Hager)
30	RADIANT SUN (Hamblen)
28	DRESS SUIT (Spence)
28	MARGARITA (Schreiners)
27	AZURE LACE (Plough)
27	ETCHED APRICOT (Gibson)
27	LIGHT AND LOVELY (Rees)
27	MORNING KISS (Tucker)
27	PINK HORIZON (Schreiners)
26	CAPE TOWN (Gaulter)
26	CHORDETTE (Schreiners)
26	HIDDEN MAGIC (Sexton)
26	MOONLIGHT AND ROSES (Sexton)
25	CIMARRON STRIP (Tompkins)
25	CORAL ICE (Plough)
25	DISTANT DRUMS (Tompkins)
25	INDIAN FRINGE (R. Blodgett)
25	SAN LEANDRO (Gaulter)

(Miniature Dwarf Bearded)

21	RED PIXIE (A. Brown)	16	LITTLE SHAVER (Mahood)
20	SUN SPARKLE (Sindt)	13	BROWN WINGS (Mahood)
17	NAVY DOLL (A. Brown)	12	LITTLE SUNBEAM (A. Brown)
16	GARNET CLEAN (Sindt)		

(Standard Dwarf Bearded)

<i>Notes</i>	<i>Variety and Hybridizer</i>	<i>Notes</i>	<i>Variety and Hybridizer</i>
30	TEBBY DARE (Wolff)	20	DOLL APRON (Goett)
28	FINE PRINT (Keppel)	19	BLOODSPOT (Craig)
28	LEMON SPOT (Willott)	19	PLICUTIE (A. Brown)
27	DOVE WINGS (Roberts)	19	WATERCOLOR (Roberts)
25	FOOTNOTE (Keppel)	15	ROYAL FAIRY (A. Brown)

(Intermediate Bearded)

17	ALPINE HALO (A. Brown)	15	TEKO (Z. Benson)
16	FLARETTE (Plough)		

(Border Bearded)

61	JUNIOR PROM (Ghio)	25	RASPBERRY PARFAIT (C. McCaughey)
32	DASHING DEB (A. Brown)	23	NEW DEW (Wolff)

(Miniature Tall Bearded)

15	WHISPERING SPRITE (Guild)	11	TABLE WARE (Muhlestein)
11	SPARKLE BRITE (Guild)	10	DAINTY DOVE (A. Brown)
		10	SWEET HELEN (Kemp)

(Arilbred)

75	ESTHER THE QUEEN (Hunt)	24	BETHLEHEM SONG (Foster)
27	AMETHYST ACCENT (Kidd)	18	FAIRY GOBLIN (Foster)
		17	SARACEN WARRIOR (M. Rogers)

(California)

10	NATIVE MUSIC (Ferguson)		
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(Japanese)

To be announced in October *Bulletin*.

(Louisiana)

22	DELTA KING (Hager)	10	CONTRABAND DAYS (Granger)
12	NEW COMER (Holleyman)	10	TARNISHED BRASS (Chowning)

(Siberian)

40	ILLINI ENCORE (Varner)	22	RUBY WINE (Hager)
30	SPARKLING ROSE (Hager)	16	BLUE BURN (McGarvey)

(Spuria)

27	WOODWIND (Hager)	16	LANDSCAPE BLUE (Ferguson)
19	HIGHLINE LAVENDER (McCown)	16	PURPLE KNIGHT (Ferguson)
19	INTENSITY (Ferguson)	13	MEDIA LUZ (Hager)

THE HIGH COMMENDATION AWARD

(Tall Bearded)

Votes Hybridizer and Iris

- 9 Babson: R-10-16
- 6 Babson: (Chapeau)
- 5 Babson: R21-1
- 5 Beard: 64-12
- 15 C. Benson: 67-13
- 10 C. Benson: 66-13C
- 9 C. Benson: 67-11
- 6 C. Benson: 67-13B
- 6 C. Benson: 67-7A
- 5 C. Benson: 67-8
- 6 Blocher: B-228
- 5 Blocher: (Sea of Tranquility)
- 5 Blocher: B-223
- 6 R. Blodgett: 67-32
- 7 C. Brown: H-7-3
- 5 F. A. Brown: 65-135A
- 9 O. Brown: 7-7A26
- 7 O. Brown: 66-171
- 6 O. Brown: 32-D4
- 5 O. Brown: 6-5C48
- 8 Buckles: 66-12
- 6 Buckles: 66-6
- 5 Buckles: 65-3
- 9 Carter: 68-1
- 6 Carter: 66-6
- 8 DeForest: 66-62
- 17 Gaskill: 2666-10
- 6 Gaskill: 467-5
- 5 Gaskill (Lady Barrington)
- 10 Gibson: (Opening Night)
- 8 Gibson: 69-8LA
- 13 Goodrick: 95-3
- 7 Hager: T-2126A
- 10 Hamblen: H-64-25-2
- 6 Hamblen: H-66-36-C
- 6 Hamblen: H-63-44-A
- 8 Hamner: 64-X
- 14 Hinkle: (Royal Egyptian)
- 7 Hooker: 79-30
- 7 Jensen: J-4-68
- 8 B. Jones: 821-1
- 10 Knocke: K-121
- 7 Knopf: 66-19
- 5 Livingston: 65-36
- 5 Markham: 64-16
- 13 Marsh: 66-93
- 5 Marsh: 65-53
- 9 Meyers: 65-10
- 5 K. Miller: 65-29-M
- 6 Moldovan: 66-27
- 5 Moldovan: 68-14
- 5 Munger: 66-1A

Votes Hybridizer and Iris

- 6 Newhard: 558
- 10 Niswonger: 5-66
- 5 Niswonger: 17-68
- 5 Niswonger: 4-65
- 6 O'Brien: 65-16
- 5 O'Brien: 65-15
- 12 Olson: 67-22A
- 10 Olson: 68-29A
- 6 Olson: 68-1A
- 8 Palmer: 1776 R
- 6 Palmer: 10065 E
- 6 Palmer: 1767 A
- 5 Palmer: 866 A
- 14 L. Peterson: LP-65-10
- 5 Pickard: 5622
- 7 Plough: 66-73-7
- 5 Protzmann: 66-50
- 5 Protzmann: (Maid En Milwaukee)
- 6 Redenbo: 1-32-4
- 5 Roberts: (Accentuation)
- 12 Rudolph: 66-25
- 6 Rudolph: 67-70
- 5 Rudolph: 67-31
- 5 Saddoris: 63-15A
- 7 Schirmer: (Intoxication)
- 6 Schirmer: (Command Performance)
- 5 Schliefert: 64-117
- 7 Schreiners: A-705-10
- 7 Schreiners: A-372A
- 6 Schreiners: B-778-2
- 6 Schreiners: A-830-3
- 6 Schreiners: A-703-1
- 5 Sexton: 134-63
- 12 Sheaff: 63-44-H
- 6 Shoop: 66-1
- 8 Spence: 64-33-7A
- 8 Spence: 62-13-4D
- 5 Steinhauer: 111-68
- 8 Tams: T 968
- 6 Terrell: T-63-41
- 5 Tolman: 65-127-2
- 5 Tompkins: 66-86C
- 7 Tucker: 47-M
- 16 Varner: 731
- 8 Varner: 460
- 7 Varner: 893
- 8 Wadkamper: 65-1
- 8 J. Welch: 6460 A
- 7 Wills: 50-63
- 6 Wills: (Round Dance)
- 6 Zurbrigg: 65-40A

(Miniature Dwarf Bearded)

- 5 Westfall: 4-33-1

(Intermediate Bearded)

- 5 Goett: 18G-2
- 6 Hamblen: H-8-113-3

- 5 Keppel: (Early Edition)

(Border Bearded)

Votes Hybridizer and Iris

- 6 R. Blodgett: 67-12T
- 5 C. Hansen: C-49
- 5 Hooker: 4635

Votes Hybridizer and Iris

- 5 Varner: 981
- 6 M. Wright: 66-11

(Arilbred)

- 7 Foster: 67-13-1
- 5 Graves: 123-64-2
- 7 Keefe: 14-67-1

- 7 Rogers: (Saracen Splendor)
- 16 Tate: 65-4K

(Siberian)

- 5 Hager: SB-8

THE REGIONAL TEST GARDEN AWARD

(Region 1)

- 6 Thomsen: 28-B-64
- 5 Gadd: 14A-64

- 5 J. Welch: 6445-A

(Region 7)

- 5 Alexander: 63-1-4

(Region 14)

- 5 R. Dunn: B-64-159B

(Region 18)

- 8 Olson: 66-7A

- 7 Olson: 66-6B

(Region 22)

- 5 Z. Benson: L-5-19-9

- 5 Z. Benson: L5-23-6

GUEST IRISES

Votes Variety and Hybridizer

- 101 RASPBERRY RIPPLES
(Niswonger)
- 98 GALA ROSE (A. Blodgett)
- 92 TOMTEBO (Ney)
- 87 OCTOBER ALE (Schreiners)
- 57 INDIAN FRINGE
(R. Blodgett)
- 56 WISCONSIN HERITAGE
(Protzmann)
- 55 COPPER CRAFT
(C. & K. Smith)
- 49 VITAFIRE (Schreiners)
- 41 JUNIOR PROM (Ghio)
- 40 LA JUANA (R. Brown)
- 40 TUXEDO (Schreiners)
- 36 AMOS SHERARD
(C. Smith)
- 25 MAIDEN VOYAGE
(Barrere)
- 23 GRAND BAROQUE
(Zurbrigg)

Votes Variety and Hybridizer

- 21 CHORDETTE (Schreiners)
- 21 ISLE OF DREAMS
(A. Brown)
- 21 PENTHOUSE (Ghio)
- 19 BLISS (Zurbrigg)
- 19 ROYAL TOUCH
(Schreiners)
- 16 PINK TAFFETA (Rudolph)
- 15 APOLLO'S GIFT
(R. Blodgett)
- 15 BAY VIEW (Ghio)
- 15 CURTAIN CALL
(Schreiners)
- 13 REDWOOD EMBERS
(E. Blodgett)
- 12 POINT CLEAR (Pickard)
- 12 TYCOON'S GOLD
(Niswonger)
- 11 FASHION FARE (R. Brown)
- 10 IVORY LACE (R. Brown)

NEW YORK

1970

See Change In Dates
Below

LOUIS A. KAMPS

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60062

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LOUISIANA IRISES

30 new seedlings

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INTRODUCTIONS

HAPPINESS IS LOVING CARE

IMPACT GRAND OPENING

NEW YORK MEETING—CHANGE IN DATES

Please Note: The 1970 meeting in New York has been changed to May 30 (Saturday) through June 2 (Tuesday). Please make this change of dates on your calendar.

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Polished aluminum or milk white flexible vinyl tags on vinyl sheathed aluminum stakes. No wear out, rust out or break up. They are permanent and reusable. Write with grease crayon.

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NEW YORK 1970

Note change of dates above

ERROR

The cutline for the front cover, as found on page 3 is wrong. With three printing productions going on at the same time, the cutline for one of the color plates of WEIGSK inadvertently got printed into the *Bulletin*, in place of the following:

The cover picture is that of Rex Brown's SILVER WEDDING.

We regret the error; the outside seventy-two pages were printed while we were in Milwaukee, with the center thirty-two pages being held up for convention reports and awards reports.

WHAT EVERY IRIS GROWER SHOULD KNOW

(Revised)

Thirty-two pages plus eight pages of color pictures.

This revision attempts to put in handy and concise and organized form the information about the American Iris Society and its activities, and about the kinds of irises, growing them, diseases and pests, showing irises, and hybridizing.

Ready August 1, 1969

Single copy . . . \$1.00

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Order from:

American Iris Society
2315 Tower Grove Avenue
St. Louis, Missouri 63110

HANDBOOK FOR JUDGES AND SHOW OFFICIALS

(Revised)

Will be ready for distribution by September 1 or earlier.

The 1965 *Handbook* has been brought up to date, with some considerable revision. Judges and students of irises will want this 1969 *Handbook* as the latest and best information we have on irises and the standards by which they are judged.

Single copy: AIS Member — \$1.50

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1969 MEMBERSHIP CAMPAIGN, CONTINUED

Earl T. Browder

Have time to visit awhile? You see I've been made your Membership Chairman, so have a task to do. Reminds me of the old time evangelist who came to our church to hold a revival a half century ago. In his opening sermon he declared that three things were necessary for a successful revival and that they were Grace, Grit and Greenback. He went on to say the Good Lord would furnish the Grace, he would furnish the Grit and that the local congregation should furnish the Greenback. He was a sincere, down-to-earth type of minister. If I recall correctly the revival was a great success.

We might pattern ourselves along that line. Our AIS has the necessary Grace, I'll provide the Grit—and you provide the Getting.

Without getting into a long dissertation on the subject let me say simply that we do need to keep each member we have and to add greatly to our number. It can be done. With your help we will.

I much like the idea of "every member get a member". It is good. But others have used that idea, so suppose we change it a bit and make it read, "I want just *one* new member—and that's the one *you* bring to us." In other words I want a new member from each of you who read this. Impossible? Not if you will find *your* new member, it isn't. Won't you try it? Not next quarter or next month or next week—but *now*. Within the next twenty four hours! It *can* be done.

Only—while you're at it please don't separate a man from his wife, or mother from daughter, or son—bring them in as a family membership. Keep the family together! Isn't that a reasonable thing to do?

What kind of memberships do we want? The best and cheapest membership we have to offer is the three-year family membership for \$15.00. It's cheapest for the new member, and is far better for the AIS., for if we get members for three years, they'll most likely stay members. Naturally if the prospective members do not care for that then tell them of the one-year family membership for \$6.00.

What kind of people do we want as members? Sincere flower lovers who enjoy beauty and who are of good repute. Wouldn't that about cover it?

Our immediate past Membership Chairman, Hugo Wall, set up our "1969 Membership Campaign" starting on page 121 of the January, 1969 *Bulletin*. Hugo gave much time and thought and effort to the campaign. I do not know how to improve on it. So let us say thanks to Mr. Wall by closing his campaign with new members—so many he will *know* our great appreciation for his efforts. O.K.? Fine!

Remember always it is OUR American Iris Society. It is not theirs, or the Board's or anything of the kind—it is *ours*.

What do you do with your new applications? Do whatever you've been doing with them. Hopefully each Region has a Membership Chairman. If so, that's where they should go so they can be properly credited to your Region immediately. Which reminds me—we must know to whom to give credit for new members if we are to know who wins the contest. Send this information to Cliff Benson, our Executive Secretary. Also send him the new memberships if you are not reporting through a Regional Membership Chairman.

What about members of other Iris Societies? I am none too sure I know what you mean by the question. We have no quarrel with local iris societies whatsoever. Help them if you can, for such is your reasonable duty. It strikes me that with your good help and patience and understanding they could well come to the point they would want to become members of our own American Iris Society. I know of no group of flower lovers anywhere that offers so much for so little; do you?

To build a large membership simply to have a large membership is a vain and meaningless accomplishment. To build a large membership for the benefit of our Society and its members is highly desirable and commendable. I will try to elaborate on this in a later article.

Meanwhile, do write me if you have ideas on the subject; just want to visit, find fault or whatever. Constructive criticism will always be most welcome and I will do my very best to answer each letter I receive.

A Southern California Display Garden

Polly Anderson and George Spalding

Come visit the Los Angeles State and County Arboretum in Arcadia, California!

Irises are in bloom there every month of the year, but are especially fine in March and April.

Our median planting, consisting of standard dwarfs, border bearded, intermediate bearded, miniature tall bearded and small onco hybrids, seem to have continual bloom, and starts its spurt in January and February. Median hybridizers from all over the country send their named hybrids for this display and test garden, and the judges in and around California are able to keep monthly check on their growth and bloom. Unfortunately, we find California growing conditions so lush that some of the dwarfs and medians grow too large, losing their dwarf habits; but for the most part the dwarfs are small and the medians are medium. In two seasons they make large clumps and prolific bloom.

Even more spectacular is the "Awards" garden, where each year's awards of TBs are displayed in a large horseshoe shaped bed which is one of several concentric half-circles making up the Display and Test Garden. Here the Arboretum grows each year the new All-America winners of annual and perennials and newer varieties of standard things such as cannas, chrysanthemums, celosias, delphinium, spring flowering bulbs, etc. The Awards irises fit right in with this project, as does the Median Garden and a large spuria section, consisting of all the old-timers and the newest

varieties. The horseshoe shaped beds, seven feet wide and up to three hundred feet long, are interspersed with flowering peach trees, generally in bloom at iris time.

Off to the south of this colorful area is a hilly section, more or less naturalized, where large plantings of Pacific Coast natives thrive; and, wandering up to the top of the knoll we find a planting of arils and aril-breds.

Winter and spring visitors to Southern California should certainly visit this beautiful Arboretum, take a tram ride around the extensive garden and see the colorful bloom on trees, shrubs, perennials and greenhouse subjects from all over the world, as well as making it a special visit to see various species of irises.

ORVILLE FAY

Man Of Talent

Mrs. J. R. Hamblen

In 1953 his TRULY YOURS received the Dykes Medal; a year later it was a bright star at the national convention in Salt Lake City. MARY RANDALL received the Dykes in 1964, introducing a new color class to the world of irises. Orville became the second person in iris history to receive three Dykes Medals when RIPPLING WATERS won the coveted award in 1966.

So it is small wonder that irisarians tend to claim him as their own. His generous sharing of time and knowledge has endeared him to all who know him; many a budding hybridizer has received encouragement and help from this man who has about him no minimums—only maximums, forceful and positive convictions, and the gift of foresight as well as hindsight.

The contribution his irises have made toward improved form and diversified color is unequaled. Orville has often said that SNOW FLURRY is the greatest parent of modern day irises; but when the statistics are all in, MARY RANDALL will be a close contender for this honor; and in time, RIPPLING WATERS will undoubtedly be number one on the list of great breeding irises. Already scores of irises are being registered which stem directly from RIPPLING WATERS, and I have yet to see an inferior seedling from this lovely pastel.

Orville has said that he never introduces an iris he does not feel is worthy of an Award Of Merit. The records show that he has introduced approximately 100 irises; 27 of them have received AM; others are likely candidates. Impressive!

But there is another chapter in the story of Orville as a hybridizer, not so well known, perhaps, to his iris friends. In the early 1930s, about the same time he began hybridizing irises, his work with daylilies started. His success with them parallels his success in the breeding of superior irises. In 1964 his FRANCES FAY won the Stout Medal, highest honor a daylily may receive. CARTWHEELS received the medal in 1966, and in 1968, SATIN GLASS was the recipient of this award. As far as I can determine, no other plant breeder has received both Dykes and Stout. Orville has three of each to his credit.

Here too, the value of the Fay daylilies lies not only in the number of

awards they have received, but in their popularity and potentiality as parents. FRANCES FAY ranks with MARY RANDALL as a top-notch breeder of fine plants. With the introduction of the Fay tetraploids a new era in daylily hybridizing was ushered in and there is little doubt that they will prove to be valuable plants in daylily breeding. CRESTWOOD ANN, a recessive melon that can be crossed with melons, yellows, oranges, reds, and lavenders—completely fertile both ways—has already proven itself.

It is not my intention to detail the various awards Orville's daylilies have received, but mention must be made of the fact that FRANCES FAY was number one on the Popularity Poll for eight consecutive years. It also received the Dave Hall Award, offered for the first time in 1962, six times . . . SATIN GLASS has won the award twice.

Orville Fay's achievements in plant breeding are an inspiration to hybridizers throughout the floral kingdom. He has no "pat" formula for success; has often said, "A plant breeder is limited only by his imagination and capacity for hard work." In addition to these qualities, and an inherent sense of aesthetic judgment, Orville has always been a scientific plant breeder. His article in the April 1965 AIS *Bulletin* is a particularly valuable discussion on dominant and recessive genes . . . and holds, perhaps, the "secret" of all his success.

IRISES IN THE MOONLIGHT

Winifred Ross

When I got over to Mrs. Gardener-Friend's back border bed, she was sitting on a little red canvas stool with a powerful electric lantern in one hand and her little blue book in the other. She had already pushed her glasses up on her forehead so she could see better, and honestly, if any one could have been concentrating more, I cannot imagine it. Einstein didn't look any more intent when he found out about relativity. Tolstoi didn't worry harder when he was wondering how WAR AND PEACE would come out.

"What is it? What is it?" I cried, trying to match her anguish.

I had to wait while she looked at her watch. I could have told her it was straight up 8:30. At night. I said again, "What is it?"

"My time is up for this one," she said, getting almost ponderously up off the stool. Later I figured that if she were spending ten minutes on each clump, up and down all day must have begun to make up and down all day very hard to do. "I vowed to look at every iris I have this season. Last year I missed all the L's."

"How did you do that?" I asked politely, wondering what the L's were.

"Well, the only way I can figure it is that I had finished with the K's, and that ended the row. So when I started back again, I skipped the next row, starting with the M's. I have lots of L's, you know."

"Of course," I said, still polite.

"You know, I really shouldn't just keep adding and adding to my collection," she mused, not noticing that I had picked up the little red canvas stool, accepted the lantern—Japanese it is in design, with a strong battery and very attractive as all garden things must be—and now was helping her toward the patio. It was getting to be a chilly night. Iristime is often

chilly at night, you know. I think it makes for crisp iris mornings.

"I'll tell you what I do," I began happily. But this wasn't my night to speak unless spoken to.

"I still have MADAME CHEREAU," she went on, "and then ROCOCO in the R's."

For a few minutes I thought that ROCOCO IN THE R'S would make a good title for a story. I considered what would be the plot, and couldn't come up with anything in the minute I had except that a man (a spy, of course, this being a year for spies) named Rococo (code-name, of course) was found dead among the R's in the local library.

"I should perhaps not have 5,389 iris varieties," she said despondently. "I have managed to get a full-time gardener, but all he can do is clean and once in a while print a new marker."

"Maybe you could get him to look at the Q's for you," I jabbered facetiously.

I'm sure she looked at me sharply but I wouldn't look back. As we got into the patio light, I turned off the lantern.

"Perhaps around 3500 would be plenty," she decided. "What do you think?"

"Oh, it would be a good round figure."

"Award of Merit winners, naturally," she went on, "And Judge's Choice, and new ones. I must have new ones. And I can't just have tall bearded ones. I must have borders and dwarfs and arils and Japanese and beardless—"

"Of course," I soothed, wondering if I should go in and get her pills.

"But then, I'm already through the S's, and that makes ten minutes for each one." Her voice grew plaintive. "The days certainly are long, aren't they?"

"Yes," I said, "which reminds me, I've got to run. Are you going in now?"

In the dim patio light, she looked shocked. She took her glasses off her forehead, polished them carefully on her skirt and put them back on her forehead. "In? You mean in the HOUSE? Heavens, no! I have several T's which might not last through the weekend! Hand me that lantern, will you?"

I passed the lantern over, careful to push the ON button. Uneasily I glanced toward my own garden, nestling in the darkness. What had I missed? Surely something had bloomed, and I'd missed it. What could one see by a pen-lite?

"I must go," I repeated. She waved over her shoulder, plodding earnestly out to the row of T's. I felt sorry for her, I really did. No more will power than that, to overload herself so that she couldn't even comfortably enjoy the most exciting flower in the world! And 5,389! A moron could see one would have trouble enjoying that many. It's hard enough for me, and I'm much younger than she is, just to get around to my own collection.

(Of course, I'm not in her class. That was last spring, and even with my fall planting I am only up to 2,967. I have a trade on, though, which might put me over the 3,000 mark this year. I'm very well organized about looking at them, however.

Any one know where I can find a good used Japanese electric lantern?)



MAY MELODY
(Hamblen '65)



LIME FIZZ
(Schreiner '69)

Photos by Foster Allen

Studies to Improve Iris Seed Germination

JOHN WEILER

Associate Professor of Botany
Fresno State College

INTRODUCTION

Poor germination of iris seeds has seriously hindered hybridizing programs of both amateur and professional irisarians. This poor germination makes it difficult to obtain large numbers of progeny from a particular mating and thereby reduces the chance of obtaining desired improvements. Also rendered very difficult is the serious study of inheritance. My own experience with hybridizing and growing iris from seeds has been frustrating because of poor germination.

I first became aware of this problem several years ago while growing irises on the Great Plains in Nebraska. Keeping records soon showed that germination ranged from 0 to 75%, depending upon the parentage, when all seeds were given similar treatment by planting in an outdoor seedbed where they were exposed to winter freezes and snow. More recently in central California where rainfall is much less and temperatures milder, my tall bearded iris seeds planted outside have been giving germination averaging only 15 to 20% and, during spring of 1966, only 395 seeds germinated from a total of 3358 planted the preceding fall, a meager 11%.

At about the time the latter data were tabulated, an excellent review of literature on iris seed germination appeared in the AIS Bulletin (Kidd, 1966). Physical factors reported as effecting iris seed germination were water, temperature, oxygen pressure, and light. It was further noted that dormancy occurs in all species of iris tested for germination, and that this dormancy could in part be regulated by physical factors of the environment enumerated above. Of particular interest was the discussion of inhibitor

substances in the seeds of tall bearded irises. Randolph and Cox (1943) first showed the existence of such germination inhibitors and noted that chipped seeds leached with water or exposed to 50 percent oxygen in air were stimulated to germinate better than untreated seeds. More recently Jorgensen (1965) has shown that both water and ether extracts from ground, tall bearded iris seeds contain substances which inhibit germination of wheat, onion, and red top seeds. This suggests that the substances extracted might also inhibit germination of iris seeds.

Nearly all experiments reported upon have been rather complex or require special gadgetry and facilities such as greenhouses, oxygen tanks, facilities for preparing sterile culture media, and rigorous temperature control. Such items are necessary for research, but are usually available only to professional plantmen or in the research laboratory. As such, there is little opportunity for the average gardener to attempt using techniques reported as useful in stimulating iris seed germination. The problem then became one of selecting information from the various articles to help design an experiment that would indicate how iris seeds could be stimulated to germinate by a simple, inexpensive means.

Running as a thread through all the reports was the idea that water treatment might aid in breaking dormancy. Kidd (1966), commenting on methods used to stimulate germination states, "Prolonged soaking in water is felt by many to be beneficial, but the amount to which this leaches the seeds or merely insures the necessary imbibed state is unknown." Randolph and Cox (1943) showed useful results with chipped and soaked seeds, and Jorgensen (1966) demonstrated that prolonged soaking in oxygenated water followed by cold storage at 32° F stimulated germination of whole seeds more than chipped seeds. Jorgensen further stated that different results were sometimes obtained when different seed sources were used. He also worked with whole and chipped seeds that had not been soaked in water for extended periods; but these results are difficult to compare with those cited above since some germination was allowed to proceed during fall months without a cold period, then ungerminated seeds were stored outdoors for 2½ months where they were exposed to variable winter temperatures of Colorado, and finally seeds were returned to the greenhouse where germination was completed. All these reports suggest that a simple experiment might be designed using water treatment to stimulate germination.

MATERIALS AND METHODS

Pollinations were made of 23 different combinations of tall bearded iris clones to obtain seeds for germination experiments. Some clones used were commercial varieties and others were seedlings derived in my garden by hybridizing commercial varieties. For some purposes, it would have been desirable to have many seeds from a single mating. However, experiments reported by Kidd and by Jorgensen, as well as my own experience, indicated variation in germination response depending upon the parental clones used for seed production. Because of this variation it was thought the use of several different clones as seed sources would better allow generalizations to be made from results of any experiment designed.

Three flowers were pollinated for each clonal combination but not all pollinations were successful. Fruits were harvested during July and August. Each seed lot of the same parentage was given a number and sub-

divided into three approximately equal batches, A, B, and C. Batch A was used as a control with no pre-planting treatment. Batch B was soaked in tap water in 2 ounce glass jars (empty baby food jars) for seven days and the water was changed daily. Batch C was treated like batch B and then the softened seed coats were scraped away from the pearly endosperm with a small, blunt knife. This latter technique is a tedious process, but nearly all traces of seed coat can be removed without seriously damaging the hard endosperm. Although earlier experiments like those of Jorgensen (1966) used a chipping technique "exposing the radicle of the embryo," this process of peeling does not visibly expose the embryo radicle. It was thought that if germination inhibitors had not been thoroughly leached from the seed coats, this treatment might directly enhance germination. If inhibitors existed in endosperm as suggested by Lenz (1955), seed coat removal would place the endosperm in direct contact with soil solution where any water soluble inhibitors that may remain could continue to diffuse outward.

On November 17, 1966, following seed treatment, each batch of all seed lots was labeled and planted separately in a prepared seed bed of sandy soil outdoors. Seeds were spaced $\frac{1}{2}$ inch apart in rows 4 inches apart and covered with $\frac{1}{2}$ inch of soil. The seed bed was watered to keep it moist until the rainy season began. Air temperatures occasionally reached 70° F in daytime, but usually were in the 40° to 50° F range. Night temperatures often fell to 32° F or slightly below, but soil did not freeze during the entire experiment. Seedling counts were taken weekly after first germination was noted and were continued until there was a marked decline in appearance of new seedlings.

RESULTS AND DISCUSSION

First germination was recorded on February 5 with the greatest number of plants appearing in batch C, the soaked and peeled seeds. A smaller number had germinated in batch B, soaked whole seeds, and the fewest had germinated in batch A, untreated seeds. This early trend remained unchanged for the remainder of the experiment in most seed lots. While soaked, peeled seeds germinated most rapidly, the weekly seedling counts indicated that soaked whole seeds tended with time to approach more closely the germination percentages of peeled seeds. These results are not in complete agreement with those obtained by Jorgensen (1966). He found that chipped seeds germinated poorly because of a tendency to decay except when he stored the seeds moist at 32° F for 55 days or longer. Even with this latter treatment chipped seeds did not germinate as well as whole seeds.

Total germination percentages for batches A, B, and C of seed lots at termination of the experiment are indicated in the right column of Table 1. For most seed lots germination was poorest in batch A and best in batch C. Notable exceptions were seed lots 7 and 9 in which precisely opposite results were obtained with batch A germinating best and batch C germinating poorest. Although it was not investigated, it could be that the peeled seeds in lots 7 and 9 were attacked by decay organisms. Other minor variations from the general trend occurred in some lots as would be expected from the varied source of seeds and the relatively small number of seeds in some lots.

When data is grouped for all seed lots according to treatment for batches A, B, or C, it is revealing to note germination percentages. Untreated seeds showed 47 percent, soaked whole seeds showed 63 percent, and soaked peeled seeds showed 74 percent germination. There is reasonably good agreement in over-all germination percentage of soaked seeds in this experiment with results obtained by Jorgensen. In his experiment seeds were soaked 27 days in running, oxygenated tap water maintained at 50° to 55° F. In this experiment seeds were soaked only 7 days in standing tap water changed daily with no added oxygen and no temperature control. The germination of untreated seeds in this experiment is considerably better than had been obtained on untreated seeds in previous years in Fresno, California. The difference is probably due to greater precipitation during winter of 1966-67, which was nearly double the normal amount.

The results of the experiments cited above pose problems. For instance, if seed dormancy following an after-ripening period is regulated by inhibitors, then why don't all seeds germinate when leached with water? More than one possible answer is suggested. It might be that a more prolonged treatment with water would leach all inhibitors from the seeds. Although seeds in Jorgensen's experiment were leached almost four times as long as those in the present report, there was no significant difference in germination results. However, this may be an unfair comparison since Jorgensen planted seeds in pots, encased them in plastic bags, and stored them at 32° F after soaking in water. Seeds in my experiment were planted outdoors where they received additional water both from the tap and by precipitation. A second explanation may be indicated by results of Jorgensen's earlier work (1965). He found inhibiting substances in ether extracts of iris seeds. While these substances inhibited seed germination, they were less effective than water extracts from iris seeds. The ether extractable substances inhibiting germination would not readily be leached from seeds by water and probably remain in large enough quantities to suppress germination of some seeds.

CONCLUSIONS

Results of this experiment demonstrate that prolonged soaking in water will stimulate germination of bearded iris seeds. It is probable that iris seeds planted outdoors in areas of high rainfall would benefit less by such preplanting treatment than would those planted in more arid regions of the country. Germination is further enhanced by removing seed coats after soaking, but it would appear that peeling the entire seed coat away offers no advantage over the chipping technique. After soaking, softened seed coats can be scraped from the pointed end of the seed much easier than chipping dry seed coats. Whether chipping or removal of seed coats allows better leaching of inhibitors from endosperm, or whether this simply promotes better water absorption by the embryo, is still unsolved. However, the procedure for obtaining many progeny from a seed lot instead of a few is so simple that most gardeners trying to hybridize would benefit greatly by soaking seeds in water changed daily for at least a week prior to planting.

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TABLE 1

Summation of Germination Experiment Using Three Different Seed Treatments.

Treatment	Number of Seeds	Number Germinated	Percent Germination
Control, untreated	695	327	47
Soaked, whole seeds	689	434	63
Soaked, peeled seeds	692	509	74



BOTANY BAY
(B. Jones '67)



DREAM SPINNER
(Shoop '68)

Pictures by Allen

My Hybridizing Experiences

ALBERT J. MOTSCH

When I first started crossing irises, like most first-timers, I crossed what I had in my garden just to see what I would get. Then the late Albert Lauck gave me some fine named varieties, and I began to keep some records. I had some nice seedlings, and I watched for certain qualities in which I was interested. I became more careful in the selection of parents; I now had some idea of what I might expect.

Then "this wild hybridizer", as one of my friends in Region 9 called me, began to make some wide crosses. He said, "I don't know what you are doing, but you do have some seed pods.

Many years ago I grew the old-time diploids, such as HER MAJESTY, QUEEN OF MAY, DARIUS and others of this type. I came up with some lavender-pink tones, and even an amoena. I lost these irises because of

borers, with which I was not familiar at the time. I had a beautiful diploid plicata, JEANNE D'ARC, with standards heavily flushed dark red-purple and falls heavily dotted, quite dark. I would like to get this again if possible. It gave many different plicata patterns, one in a pink tone and one with heavy dots on the reverse side of the falls.

I made one amoena diploid cross, just for speculation. All of the seedlings except one were the white and purple of the parents; this one had cream standards and blue falls. This was one of my first experiments.

Another interesting wide cross, probably a bee cross, came from a small-flowered *Virginica* X unknown. This plant had nine branches, including the terminal, and three flowers per socket. These flowers also were small, and were light lavender and veined. I originally started with the larger type *Virginica*, but due to crossing, ended up with the small flowering type. I do not know the answer. I may still have a picture of this plant showing its branches. It was registered as COLUMBUS PARK. After three years of growth, I lost the plant. The rhizomes failed to produce the small fibrous roots, for some reason, and perished. I asked the specialists what was wrong, but they could give no answer.

Two interesting crosses involved diploid amoenas (white and purple) with tetraploids. In one cross the amoena diploid was used as the pod parent; in the other as the pollen parent. In the first case the amoena diploid X TWILITE SKY produced an F¹ amoena, tall and tetraploid, with white standards and light lavender-pink falls. I introduced this in 1968 under the name MY DREAM. This new introduction also gave an amoena in a larger size and similar color, except the lavender-pink is a still lighter tint, from a cross with an INSPIRATION X CREAM LACE seedling.

The other seedling, registered DIMINUTIVE, came from ELMOHR X this same diploid. It produced a flower and plant of the SDB lilliput type, with white standards and rose falls. I may introduce this in 1969. A new race was born when the lilliputs came into existence. The diversity of wide colors and unusual patterns coming up in this group cannot be found in either parent, dwarf or tall bearded. Can these new colors be bred back into dwarfs and tall.

I started my race of lilliputs by crossing BLUE SHIMMER X SULINA. There were some blues and purples, one white and two yellows with a green area around the beard. I then crossed some of these with LITTLE SHADOW. This cross gave that unusual color pattern, GREEN METEOR. The lavender beard on GREEN METEOR carries on to succeeding generations. I then added GREEN SPOT to some of my crosses, and got some nice patterns with more green influence. I finally added KNOTTY PINE to my line crosses. This gives smaller and better size flowers and stems carrying flowers above the foliage. I have one small clump of KNOTTY PINE this year, and counted eighteen flower stems. One of my crosses from KNOTTY PINE gave a seedling similar to GREEN METEOR, but with chartreuse background instead of blue with a heavy green area. CUMBERLAND GOLD, a bright gold, comes from SUNSET SERENADE X BRYCE CANYON X CARPATHIA. One of the seedlings bloomed this year with violet standards and falls with small edge of medium violet and a dark wine spot on the falls. This is from (BLUE SHIMMER X SULINA) X LITTLE SHADOW X CUMBERLAND GOLD.

I would breed first for quality, form, flower size in proportion to height,

more vividness in colors, even with whites and blacks, then branching, and last for new colors and patterns. Do not be afraid to make a few wide crosses; there is nothing to lose.

Croatica as a pod parent gives seedlings with fine branching. It has one bad fault, but this can be eliminated. It has a tendency to give the "old" haft veining. My new seedling, DAY'S PROSPECTS, from *croatica* X a tall bearded red, of medium size, is a red-purple of good appearance, with medium sized flowers and fine branching. One stem had the appearance of two stems at the base from the same plant, and this one rhizome produced about fifteen flowers. Height was about twenty-six inches; occasionally one will reach twenty-eight inches.

BLUE SHIMMER x SULINA X *subbiflora* gave some nice dark velvety seedlings. One cross of BLUE SHIMMER x SULINA X *balkana* dwarf (48 chromosomes) gave some nicely formed, rather dwarf plants with bloom of various colors, including one yellow self.

It is a very good practice to develop some seedlings from your own line, if you want something different. I find breeding by selection is interesting and rewarding.

SOMETHING NEW

Henry C. Rowlan

In the great iris world there always is something new going on. Last November I wrote to Phil Williams about my interest in horned, spooned and flounced irises, and our correspondence brought a new AIS Robin into being, starting its first flight January 15, with seven members. Since then, four more have been added.

We hope to promote the horned, spooned and flounced irises to the general iris public and to share knowledge with other members. We grow them for people to see, talk them up, and try to get other irisarians interested in them. We are hybridizing with them to make general and needed improvements in them, such as more width at the haft, maybe a larger blossom, and better substance and branching. I have been hybridizing these irises for five years now, and while I have had mostly misses and disappointments, I do have a few that may permit a break in reaching our goal. One is a blue with about a two and one-half inch haft and decent blossoms. Another is a white with purple horns that has beautiful branching but the blossoms are small. I would like to work this up into a larger bloom, for it is a very striking iris with the purple horns accenting the white bloom. Dr. Lloyd Zurbrigg has an F₂ seedling with horns of three colors, bearded to the end.

We shall miss Tom Craig, for in the time he was in the Robin, he gave us some very useful information.

The Robin is named for Lloyd Austin in honor of the work that he did in these classes of irises, and Gladys Austin is a member of the group. We do have some very interesting irisarians in our Robin, and I know that a second robin will be necessary; in fact, with one more member, we will start the second robin flying. If you are interested, contact Peggy Burke Grey, 8191 Franz Valley Road, Calistoga, Calif. 94515; or write me: Henry C. Rowlan, 12 Roxbury Drive, Little Rock, Ark. 72209.

LET'S TAKE A LOOK AT THE ROBIN PROGRAM

Mrs. W. E. Leake

It is our desire to maintain a better Robin program to help us grow. What can we do through this program to bring our membership closer together? I believe that this can be done by its activities, its members and **our gardens**—until we all know each other better and become more of a big family.

Let's have personal articles about our members. Let's get acquainted. Let's talk up our gardens; before long we will begin to note a feeling of pride, and we'll be better for it.

The Robin program is the heartbeat of The American Iris Society. New ideas and new thoughts are assets to any program; it is the thinking that creates success. I like ideas; I like other people's ideas; I like to bring them into action when the time is ripe. Actions which follow ideas can branch out in many ways. The more effort we put into this program, the more rewarding it will be. The fun comes from pursuing an activity. Let's let our enthusiasms shine through the Robin Program and be better robinaires.

Most of us enjoy some mention and general descriptions of our gardens in the newsletters and journals. I like to read about someone's trip to a garden. What irises impressed them the most? What we want is authoritative information. Is some particular iris a good doer? Is it worthy of growing in our gardens? Does it have substance, color, size? Is it a fast or a slow increaser? All this is important.

I consider the Robin program the most beneficial part of AIS. I think it helps keep interest high among members. There is a need for holding members as well as obtaining new ones, so guess we need expert and beginner talk too. Let's not forget; no one begins as an expert.

Let's work a little harder for a better program!

IRISES IN JAPAN

Lee Eberhardt

Bearded Irises. In 1967 this writer presented a slide show and talk about all types of bearded irises grown in America to a group of iris enthusiasts and scientists at the Kyoto Botanic Garden. From the questions raised at the meeting and observations of plantings, it is obvious that the hot, humid, rainy season of June and July create difficult growing situations with drainage and soft rot problems. Even losses of plantings using clay pots were high.

We returned in June, 1968, and a well-attended meeting was held in Osaka. Here slides of irises photographed at the Berkeley meeting were shown, and comments made on the best varieties at the convention.

Plantings of TB irises were seen at Osaka Agricultural Center, Shuzenji Iris Display Garden, Mr. Horinka's home, and on Dr. Shu Hirao's Mountain. All seemed to be doing quite well in raised beds. Several comments were made that former problems of soft rot may have been due to excessive fertilizer. Some shorter irises, including *I. pumila*, were growing in the Osaka and Tokyo areas, mostly in pots. On the north island of Hok-

kaido many clumps of five or six varieties of older diploid TBs were seen, especially in railroad stations and kitchen gardens. These few varieties apparently were planted many years ago and survived to become widely scattered. The North Island climate should prove much better for bearded irises than the other areas visited.

There is considerable interest in bearded irises in Japan and many of the enthusiasts are professional geneticists, botanists and agriculturalists. With help and incentive these people could contribute greatly to the development of our favorite flower. We met Miss Seiko Takuma, editor of the foremost garden book publishers in Japan, and she is developing a book on TB irises for beginners, to come out in 1969.

The **Japanese irises** were at peak bloom, and we visited several major gardens with extensive and beautiful plantings. The Meiji Shrine Garden, planted mostly with older Edo varieties, is located in an extensive wooded park not far from central Tokyo. These irises grow in a narrow meandering valley, surrounded by tall trees, and with a spring at the head of the valley which provides the running water in which the irises grow. This garden is famous and hundreds of thousands of people visit it each year.

The Unenomiya Shrine, Kyoto, is a very old shrine near the famous Golden Pavilion, Kinkakuji. It is worth the trip to see Mr. Kanaoka's varieties: HAOU (Suzerain), a Kumamoto type, white with 12 parts; SHINSETSU (New Snow), with 9; and the violet HOKONOTORA (Believing Tiger), with 12-14 parts. These varieties may represent the ultimate in Japanese irises as diploids.

The Heian Shrine, Kyoto, is a very famous shrine in central Kyoto. This garden, a quiet and peaceful place, with irises in a mass planting in water in a crescent around a large pond, makes a beautiful picture; and just over a wall behind the background trees is one of Kyoto's busiest streets.

The Kyoto Botanic Garden was having an iris show on the day we visited. A number of clumps grown in large glazed pots had been trucked from Unenomiya Shrine and were grouped on the floor in the center of the room, and four or five individual varieties were displayed in containers on stepped benches around three sides of the room. The display was quite impressive. The iris garden is a marshy pond, completely filled with clumps of Ise, Edo and Kumamoto types planted in front of a mound covered with azaleas.

Ise Grand Shrine, MIIE: Dr. Tomino, Professor of Botany of MIIE University and author of a book on Japanese irises, met us, and we visited the two shrines which are the oldest and most sacred in Japan. On the road to the shrine, a bamboo hut contains a display of potted irises, which are viewed by thousands going to the shrine. The very extensive iris garden is planted on a group of bridge-connected islands along one side of a small lake. It took some time to obtain permission to go to the islands and to obtain the bridge plank, but once we arrived, it was very worthwhile. Dr. Tomino pointed out some of the best varieties and commented on them: NISHIKINSOE (Brocade Sleeve), a red Kumamoto, purple Ise type SHIRANUI (Sea Fire); ASAHI MARU (Rising Sun), violet Ise; KAMIZIYAMA, cream Ise; WARAI HOTEI, blue Edo, and a number of others. Dr. Tomino indicated that the peak had been reached on Japanese irises as diploids after 600 years of breeding, and that future advance de-

pend on tetraploids or the introduction of new genes from species other than *I. kaempferi*, which in the wild is uniformly purple, with an occasional white.

The next weekend I visited Dr. Hirao near Kamakura. He has a small steep mountain literally covered with many rare native alpines, hostas, lilies, etc. His irises are planted along the switchback path to the house and around the house. The TBs are on a narrow protected ledge near the top of the mountain. He has many interesting seedlings, and is doing some interesting work with colchicine treated materials.

The next day we traveled to Izu peninsula south of Tokyo, where we visited the Shunenji Temple and Iris Garden. There is a two-year old planting claiming a "Million Iris and 300 varieties." The garden is a "Y" shaped valley near a mountain surrounded by pine forests. The narrow valley is covered with iris clumps. This garden is sponsored by the town of Shuzenji, and the remarkable display of Japanese irises is seen by thousands of people. If they have similar crowds during the TB season, these would be the world's most looked at TB irises.

It is hoped that the slides and movie film obtained during this trip make up into a presentation for AIS meetings, so that others can share a part of this fantastic experience VIA film.

STANDARD DWARFS—1969

Carol Ramsey

The 1969 bloom season is being proclaimed the best in years, and the medians started it off in the finest fashion. Words cannot describe the sheer enjoyment of growing these adorable little irises. Believe me, if you've yet to plant a few, you are truly missing one of the most rewarding experiences of iris season.

We are fortunate, here in mid-continent USA, to have large numbers of medians grown in the gardens. We have the latest and the best—and the good old reliables with many of them still among the best. Standard dwarfs GREEN SPOT, BRASSIE, BLUE DENIM, KNOTTY PINE—they almost say to the new upstart varieties "challenge us if you can, but you'll have to **earn** your place."

Showy LILACLIL (Roberts '62) puts up stalk after stalk, bloom after bloom, with a mass of color lasting fully three weeks. LILLI-WHITE (Welch '58)—the same story. The clean white and yellow bicolor, LILLI-BRIGHT (Welch '60) can't be beat and was still in bloom well into intermediate season.

But what of the newer varieties? GRACE NOTE (Hamblen '65), one of the first to open, surely rates among the best with its yellow bitone coloring and violet beards. It may soon however have to take second place to BLUE CANARY (Hamblen '67), a more contrasting yellow bitone of superior form. BLUE CANARY brought forth ohs and ahs from garden visitors because of its much bluer violet beard and the lovely blue styles. Garden visitors one after another commented on not only the desirability of open standards, but the necessity for them in order to display the interior coloring of this most interesting iris.

CHERRY GARDEN (Bennett Jones '67) is a dark red from the violet side. Clean, flaring, good doer, and in addition to all other assets, it boasts the biggest, caterpillar self beard imaginable. You must go back again and again to see this one.

The finest yellow and red bicolor seen in this area is WATERCOLOR (Roberts '68). It is fastidiously clean, with ever so slightly ruffled horizontal falls and only the barest mention of a hairline yellow edge on the falls. WATERCOLOR managed to take three inches of driving rain in this garden and still sparkle. This is a must!

SAIL AWAY (Peterson) is a long-lasting light blue of superb habits. This has been held from introduction and I wonder why. There is no fading; substance and form are excellent..

Just about the time the blues, lilacs, yellows and whites seemed to have a monopoly, along came LENNA M. This Roberts '66 introduction was the first of the SDB pinks. Just for that fact, one would be willing to forgive a few faults, but forgiveness isn't called for. LENNA M has the growth habits an irisarian respects—it increases and blooms its fool head off on nicely branched stalks. The flowers have substance, nice form, and color! Marvelous to see this, it adds immeasurably to the garden picture.

RUBY ROCK (Street '65) is a showy red with flaring form that really takes the weather—very nice. LILLIBULLERO (Gantz '68), rough as all get out, merited interest for its very bright, almost true red coloring below the beard. This may be one to watch.

SPRING FERN (Roberts '64) is perhaps one of the most underrated SDBs. A warm white with a strong, well-defined chartreuse halo, SPRING FERN is a performer plus. A tidy stalk, well proportioned throughout, it is more the "specimen stalk" type of SDB than the massive bloom type. Frankly, a favorite of mine. And in the same "favorite" class is SHINE BOY (Brizendine '62), a reliable very dark violet of excellent garden habits. A pleasure to grow.

When the brown bitone ARRANGEMENT (Goett '63) bloomed, I asked myself why this child of KNOTTY PINE never attained the stature of its parent. It's more deeply colored, with better substance and form. A fine iris.

GLEAMING GOLD (Roberts '66) must surely be the brightest thing in the garden—literally leaping at you. A bright yellow bitone—with the falls of pure glittering gold. You'll like it—and, for your arrangers—this is a dandy. It's the "gold" iris those schedules so often call for.

DEIRDRE (Gantz '67) is a cutie. A light violet self with lilting falls and a bright red-violet area below the beard. This has all the charm and personality in the world—watch it! A lovely clean lilac self is MYRA (Greenlee '66). Beautiful form, long lasting, and good growth habit.

Why absolute renown has never come to DERRING-DO (Warburton '58), I cannot explain! This is a fine, fine iris. A bicolor, with dark violet standards and dark red-violet falls edged dark violet. It makes some of the newer SDBs of similar coloring fade away.

JOY BRINGER (Brizendine '65) is just that—a bringer of joy. Long-lasting, among the earliest bloomers, frequently with the MDBs, it is still in full bloom when the intermediates begin. A warm white with a chartreuse halo which becomes intense when planted in partial shade.

Do we have blue and green bicolors? Indeed we do, in the standard dwarfs. Warburton's DELICATE AIR led the way, but now we have FRAN JENNINGS (Goett '66) with form, plant habit, substance, and everything else. Grow it and you'll see the blue and green you've wondered about.

Many visitors ask about a good white SDB. I heartily recommend the cool white PIXIE PASTEL (Stevens '66). The falls are rounded, with flaring form and a touch of ruffling. There is a bit of blue and yellow marking around the board, but two feet away, the impression is of a pure white. Not as early as LILLI-WHITE, so this adds to the overall garden picture.

Finally there is precious little GOLD BUTTONS (Hamblen '64). A pert, adorable iris that will go straight to your heart. Bright yellow self with rounded, flaring falls, lots of substance. A very different SDB in habit—definitely a specimen-type stalk in that class, blooming in intermediate season and a promise of things to come. For those doubting Thomases, at least do yourself the favor of trying this one.

DWARF IRIS BLOOM IN OMAHA

Lucille Kavan

April 22 through May 4 marked the most prolific bloom of dwarf irises here for five years. The pumilas and pumila hybrids put on a show long to be remembered. Practically every clump was a mass of bloom; even the new ones received in late fall showed a bloomstalk.

BROWN WINGS (Mahood '68), cream dwarf with light brown halo on cream-white ground. Form good; round horizontal falls and open upright standards, 8". CHERRY HALO (Mahood '64), creamy white with red halo; standards cupped, falls round and horizontal; beard yellow; 5". DREAM STUFF (Mahood '64), smooth lilac-pink with darker area around beard, excellent form, very floriferous, appealed to everyone who saw it in bloom; 5". Has small dainty flowers, fine foliage, and is outstanding in a clump. LAVENDER CHERUB (Mahood '68), a tiny pumila self, deep lavender with white beard; very good for the rock garden. Neat! LITTLE SHAVER (Mahood '66), standards of bright yellow and falls deeper yellow; heavy beard of deep violet. Excellent form; heavy substance.

GARNET GLEAM (Sindt '68), fine red-violet self. SUN SPARKLE (Sindt '68), very tiny, bright yellow, well adapted to the rock garden. TIGER BLAZE (Sindt '68), brilliant deep yellow standards; rich deep brown falls with wide border of bright yellow; the brightest SDB for its size. PARCHMENT PLUM (Sindt '68), standards subtle lavender-blue and light tan with flush of lavender around blended gray beard; garden effect silvery gray.

MINI-PLIC (A. Brown '69), White stitched medium violet; near white beard; 6". RED PIXIE (A. Brown '68), rose-red self with large ruby red thumbprint on falls; lavender beard; 5-6". BRIGHT IDEA (A. Brown '69), chrome yellow with cadmium orange falls bordered chrome yellow; light blue beard. DOLL HOUSE (A. Brown '69), standards heliotrope; falls amethyst with edging of standards; wisteria blue beard; 7". LITTLE SUNBEAM (A. Brown '68), standards cream-white; falls bright yellow



PATSY JO
(Kavan '67)



LOVELY GEM
(Kavan)



LOVELY JEWEL
(Kavan)

Pictures by Draplik

with border of cream-white; cream beard, 7". GREEN PIXIE (A. Brown '66), standards greenish cream, near white; falls bright uranium-green with border same color as standards; ivory beard; 6".

KIP (Salsman '64), red-violet with deeper violet spot surrounding blue beard; outstanding pumila of excellent form; 5". NAVY FLIRT (Tutmark '64), deep violet-blue self with somewhat deeper falls; white beard; outstanding in a clump.

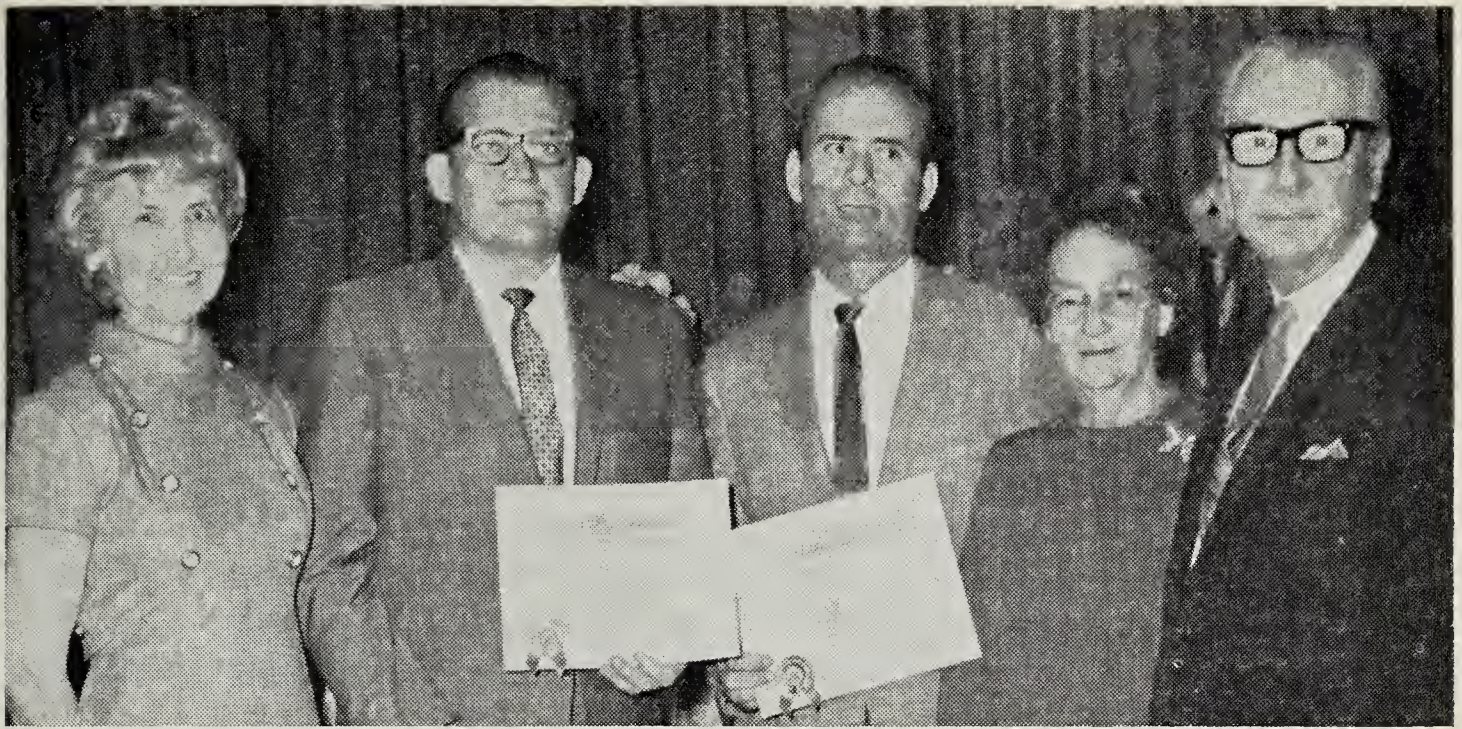
Among the SDBs, MAMA MIA (Mahood '64), red standards and falls red with deeper red spot and golden yellow beard. This is an iris for the hybridizer. PINK CUSHION (A. Brown '67) well-formed clear pink with tangerine beard. Firm cupped standards top rounded flaring falls. Vigorous grower and very floriferous.

TOWER GROVE (Wolff '68), 15", cool white with a tint of green in falls and empire yellow hafts. Well-formed iris. TEBBY DARE (Wolff '68), 11", yellow with garnet brown blaze on falls, and bright yellow beard. In the test garden it shows with four to five blooms per stalk, and is a neat well-proportioned flower. The plant has fine foliage, and is a good garden subject for the border.

LITTLE LENA (Bierman '67), a chamaeiris, yellow with red-brown lines on the falls. PATSY JO (Kavan '67) standards violet, falls darker with a spot. Beard is light blue, which makes it a good garden subject. LITTLE BLACKFOOT (Reinhardt '67), very dark red-black self with velvety falls and red-black beard; a favorite of everyone who saw it.

These were among the new ones which the judges and the visitors liked. Everyone also liked Bennett Jones' CHERRY GARDEN, BLUE MOSS and his new one, FUCHSIA GEM. The latter has garnet standards and ruby red falls; very unusual.

Among our seedlings, KNOTTY PINE produced many fine irises. A cross of PATSY JO X KNICK KNACK gave a cream self with brown halo at the hafts, and a blue beard. We find that SHINE BOY X KNOTTY PINE will give dwarfs with outstanding colors. Growing one's own seedlings continues the iris interest all year long. Try one cross and follow it through to see for yourself.



CENTRAL ARKANSAS IRIS SOCIETY SHOW

In the above picture, Bill Jones and Perry Parrish are holding certificates of Honorary Citizens of the State of Arkansas, and appointing them Ambassadors of Good Will for the state.

Kelly Bryant, as Secretary of State, is providing the Central Arkansas Iris Society with space on the capitol grounds for an iris display garden to contain originally about 500 plants, with any additional space needed later. The formal festivity takes place late in June.

FRAGRANCE THE IGNORED

John H. Cochran

I think there is no iris fancier alive, whether collector or hybridizer, who has not, at one time or another, experienced the familiar comment about irises being such lovely flowers but "Isn't it too bad they don't smell!"

Unfortunately, iris fragrance has been greatly ignored, for here is a flower which perhaps has more to offer than any other in the garden; here is a true chameleon of scent. It may range from just plain disagreeable to the spice of carnation, the pungency of citrus or the sweetness of honey, with a million subtle nuances between. Irises have no true odor which can be described as the odor of irises, such as the rose with its distinctive odor. The nearest thing to a true iris smell is "grape" and this in a sense is borrowed from the grape family.

Until 1949, at least, The American Iris Society kept records of the fragrances of irises, and Ethel Peckham prepared a monumental piece on the subject for the 1939 *Check List* showing codes and descriptions for no less than seventy-three types of iris fragrance. Unfortunately, this volume is no longer available, as it undoubtedly was the most fascinating book ever written on the genus *Iris*, and unless you own one or can obtain one, a great treat is missed on a cold winter night.

The 1949 *Check List* still kept the reader abreast of the fragrances, but not to such an interesting degree as did its predecessor. Bit by bit fragrance was being ignored in favor of larger flowers in more brilliant hues, yet who

among us has not remembered some specifically insignificant flower whose odor was so intense or subtle that it could not be forgotten, even after its gaudier cousins went out of vogue. To delight the eye, we must also delight the nose.

Recently, in a letter to Peggy Burke Grey, I brought up this subject, complaining, as I always do, that our modern cataloguers can't, for the most part, add a description of fragrance to those varieties around today which do smell. I went on further to say that if anyone else is interested in iris fragrances enough to establish a Round Robin, I would be willing to direct it.

Such a group as this perhaps could swap information about fragrant varieties or classify those varieties which have not been classified for the last twenty years, or even commence a breeding program to develop more fragrant varieties. More interest would be generated in this promising field if, in time, The American Iris Society could see fit to include fragrance in its judging, for surely one of the greatest pleasures known to man is lost without it.

In future articles to the *Bulletin* I shall try to delve into some of the history of iris fragrance, as well as some of the theories of fragrance breeding and of our most recent discoveries.

NEW YORK CONVENTION---1970

William H. Peck

Another successful convention, enjoyed by all, has become history, this one staged by our friends in Milwaukee. And with the end of one convention, immediately it becomes time to think of next year, when New York's Empire State Iris Society will be your hosts for the Golden Anniversary celebration of the founding of The American Iris Society. Like all our predecessor convention planners, we have been working well in advance of the date to assure you a good time, with lots of new irises to see in the gardens selected for the tours.

The convention headquarters will be at New York City's Statler-Hilton Hotel, with June 3 through 6 as the dates.

The opening day will find us spending a sociable afternoon together with Catherine Smith in her lovely home and garden on Staten Island. Many will recall the visits made there during the two Region 19 conventions of this decade. Both those who have seen the garden that Kenneth and Catherine Smith worked in and enjoyed together so many years, and those who have not, will enjoy hearing more about it and its development from Catherine herself in what follows.

The second day also will be spent with our Region 19 neighbors, in New Jersey this time, revisiting what was truly the highpoints of the 1961 and 1966 conventions—the world famous Presby Gardens in Upper Montclair and Fred Knocke's very special iris gardens in Readington. The Presby Gardens have been the subject of recent articles in the *Bulletin*, and more will be written about them and Barbara Walther's outstanding contribution to the iris world through her development and management of them. But for now I want you to have more information about Fred's place.

In subsequent *Bulletins* we plan to tell you more of the other gardens and areas to be visited on subsequent days, but in this issue we give the spotlight to Region 19's contribution to your enjoyment of the 1970 celebration.

The Smith Garden

Catherine Smith

The garden grows and changes every year. The five-foot hemlocks planted along the north boundary in 1948, as a windbreak, are now twenty-five feet tall and produce a mini-climate on their southern side. The sapling pin oak of 1935 is a towering graceful tree in 1969. A black birch dies of old age; a hurricane uproots old apple trees. The ever changing patterns of light and shade present a fascinating challenge to me, the custodian of this garden that Kenneth began, that he and I worked in together, that I now try to make ever more beautiful.

In the beginning all of the main flower beds were interplanted with daffodils, irises and hemerocallis; this gave three entirely different aspects to the same garden. When the "daffs" bloomed the young growth of irises and hems clothed the bare ground; in iris season no one would believe any other plant could possibly be growing in the same bed; and later when the day lilies were in bloom the same thing was true. However, as the trees grew and made shady areas, the planting of some beds had to be changed, for it isn't pleasant to see iris stalks leaning toward the sun. The shade and wind shelter provided by the trees gave us an opportunity to grow azaleas and rhododendrons (which previously had not been possible) to make lovely background plantings and add interest throughout the year.

This is primarily a hybridizer's garden, so most of the irises it contains are Smith originations. The AIS awarded the coveted Hybridizers Medal to Kenneth in 1947; though none of his irises of that date still grow here, many derived from those early ones do. He specialized in blues (LADY ILSE, SOUTH PACIFIC), yellows (SARAH AVERELL, ENTERPRISE), variegatas (STATEN ISLAND, PARADOX), and amoenas (HELEN COLLINGWOOD, RICHMONDTOWN). He encouraged me to hybridize too; it was great fun to see who got the best results (I must admit Kenneth was way ahead of me, but I managed to grow a few flowers that met with his approval and I learned). As time went on, we discussed and planned the crosses together, each sharing in all phases of the work.

It is of utmost importance to see what other gardeners are producing: visiting gardens and growing other hybridizers' originations are part of the business of keeping up to date, as well as being part of the pleasure. As long as I have known this garden, it has always contained a collection of guest irises, which necessarily must change from time to time. In 1970 the guest collection will include treasures from Cliff Benson, Larry Gaulter, Bennett Jones, Walt Luihn, Steve Moldovan, George Shoop and many others. I feel great responsibility for the guests entrusted to my care and have given them as good growing conditions as I know how. At this date of writing, April 2, 1969, I can happily report that the guest irises received last summer have done well and have an average increase of four per rhizome. Imagine what a magnificent display they'll make in 1970!

I believe I can promise that there will be some interesting new seedlings to see. For I, like all other hybridizers, am never content, but must always make more crosses, plant out more baby seedlings, and weed and water them in the hope for something better. Each spring brings some new miracle of beauty, although not always what I expect!

THE KNOCKE GARDEN

Betty Wood

The garden of Dr. Frederick J. Knocke is situated in the beautiful rolling farmland of northeastern New Jersey. With a wife and three daughters as horsewomen, the problem on enriching the soil in Fred's garden is easily solved. He has plenty of room to let the product from the stables age, and the irises thrive on it.

Back in 1953, the Knockes decided that living in the Borough of the Bronx in New York City wasn't really what they wanted, and they bought an eighty-acre farm on a hilltop in Readington, New Jersey. They call it Hobby Horse Hill. Fred has been able to sandwich in a lot of gardening between the times when his work as an orthopedic surgeon requires his presence in a nearby hospital. Meanwhile the rest of the family practices dressage. He now describes his garden as a "four horsepower garden".

When Fred first moved to Readington, his interest was captured by dahlias in a wide range of types, sizes and colors. Early visitors to his garden recall dahlias as big as dinner plates, many of which won coveted awards at the dahlia shows. He was secretary of the American Dahlia Society in 1951-53. But the dahlias have gradually given way to the iris until now he has about two acres of iris beds, mostly seedlings, of which he grows about three thousand a year. These are widely planted for power cultivation. He has equipped his garden with strong lights so that he can plow and cultivate at night when he can't get daylight for it.

Since it is not often possible for Fred to take enough time away from the hospital to attend conventions and see the new introductions, he adds between 125 and 150 of the new things each year. This makes his garden a mecca for the irisarians of the area. Having these new irises growing right in New Jersey, we, along with Fred, can study the performance of the plants in our climate in a way not possible at conventions.

For the 1970 convention, five hundred guests were planted in the Knocke garden in 1968. These were set three feet apart, mostly in beds with a backdrop of rail fencing or of bushes and trees. (Photographers take note.) These beds border the central grass-covered area behind the hilltop farm house. Visitors will be especially interested in the crowded hundred-foot bed, planted exclusively with CROSS COUNTRY. This bed has not been disturbed since 1961, when the plants were lined out following the AIS convention in New Jersey.

The guest irises have come through the winter well and are growing vigorously. Fred's chief worry now arises from a proposal to include the farm in a large jetport to serve New York City. Even if this should happen, it would not affect Hobby Horse Hill until after the 1970 convention. We of Region 19 expect that you will find the Knocke garden one of the high points of your visit.

1969 INTRODUCTIONS

CLASSIC LADY TB 34". This is a nicely flared iris with orchid standards that are pink at the base and darker at the edges. The falls are orchid with pink around the coral beard. (Dawn Flight X Garden Party) Sdlg. N 65-61-66c. Net 25.00

FINERY TB-34". Standards are pink edged apricot. Falls are the same with green line up the back. There is a delicate yellow ocre at the hafts. This iris has very clear color and has a bright tangerine beard. The whole flower is slightly lacy and serrated. (Chinese Coral X Skookum) Sdlg. Sdlg. N65-9-4. 25.00

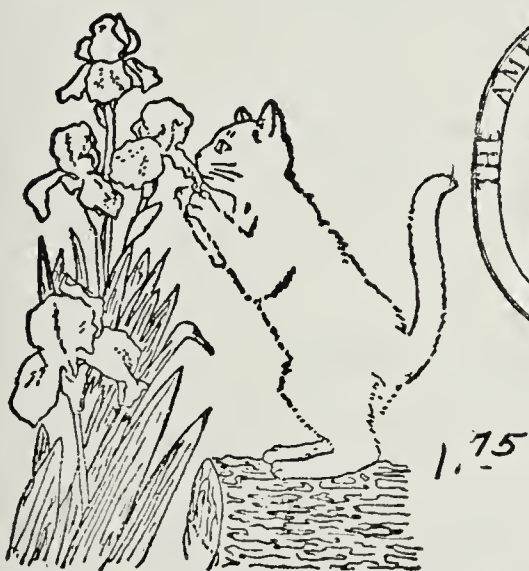
JUANITA T (Mollie Tallant) TB 36" Late. Medium sea blue self with good substance and blue beard. Ruffled. (Pacific Panorama X Poet's Dream) H.C. '67 Sdlg. 66-26. We got the stock late so it probably will not be as good as usual here. Co-introducing with Mrs. Tallant. Net 25.00

LAVENDER SAILS TB-35". Light orchid self with orchid beard. Small amount of light brown at haft. Very flaring and slightly lacy. (Amethyst Flame X Ever and Ever) Sdlg. N65-46-12 Net 25.00

SYMPHONETTE TB-34". Fine light rose self with orchid around the tangerine beard. Slightly lacy standards and fluted falls. Debby Rairdon form. (Debby Rairdon X Kingdom) H.C. '67 Net 25.00

Noyd's Iris Garden

1501 - 5th St., Wenatchee, Wa. 98801



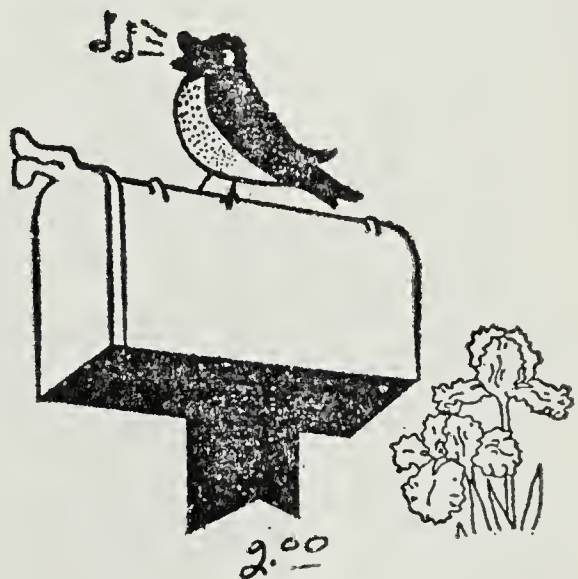
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Shipment fall 1969 or spring 1970—order this one through Jean Witt.

INQUIRIES WELCOMED

LIST ON REQUEST

Mrs. Leona P. Mahood, 11250 - 1st Ave. NW, Seattle, Wash. 98177

Mrs. Orpha Salsman, 14016 - 8th Ave. South, Seattle, Wash. 98168

Mrs. Jean G. Witt, 16516 - 25th NE, Seattle, Wash. 98155

YOUTH SECTION

KIDS: GETTING AND KEEPING THEM INTERESTED

Hal Stahly

This article and the accompanying picture are really more than anything else a tribute of Mr. Don Waters, illustrating one characteristic that helps to make him the great person he is.

During bloom season in 1966 we visited the Waters' garden. Our son John, then seven years old, was with us. Even after a lot of coaching on

proper garden behavior, I had some fears of his running wild unless physically restrained. My fears were unfounded; he calmly looked around the garden and offered a wide variety of unsolicited comment.

For whatever reason, John was particularly attracted to a nicely blooming clump of Schreiner's SUNNYDALE. He kept returning to it and telling the rest of us how great it was. Seeing this, Mr. Waters disappeared, shortly returning with a shovel. He dug a double rhizome from the clump, handed it to John, and said, "Take this home and see how well it will do for you."

SUNNYDALE was transported home and ceremoniously planted. By 1968 it had made a nice clump and produced a number of bloom-

stalks. As I was cutting some blooms for entry in a show, John sidled up and wondered if we could enter SUNNYDALE. As it happened, one stalk



was at the right stage of exhibition. John entered it in the Southeastern Michigan Iris show; and I doubt that he has ever been more thrilled than when he learned that he had won the large purple rosette for Best Specimen, Novice. He and a friend his age now have their own iris bed and are looking forward to their next show.

The major point of this, it seems to me, is that Don Waters' understanding and generosity might well have been the spark that set off an enduring interest in growing irises. One thing is certain: the more children and youth are allowed the pride of growing and exhibiting **their own irises**, the more likely AIS is to prosper in the future.

A THESIS ON THE SIBERIAN IRISES

Kevin Vaughn

It is interesting to note the similarity between MTBs and Siberians. Both had their beginnings in the '30s, with a dying off of interest in the '40s, and a revival during the '50s.

The white iris which really got everybody excited was Cassebeer's **WHITE SWIRL**. It is a very flaring white with the best form (at least I think so) of any Siberian. With this, we have gotten many new and exciting things. Mated with McGarvey's **LSB** it produced four brand new and exciting blues: **DEWFUL**, **BLUE BURN**, **SUPER EGO** and **EGO**. Mated with **GATINEAU**, it gave the Hugh Miller Trophy winner **CAMBRIDGE**. Currier McEwen got two very nice blues, **SALLY KERLIN** from White Swirl x Grey Dove (a ruffled light blue with a white blaze), and **MARILYN HOMES** from White Swirl X Blue Brilliant (a fine blue violet). I must also mention Bee Warburton's aqua styled seedling from White Swirl x Eric The Red. Some other newer white Siberians are **SNOW FLARE**, **LIGHTS OF PARIS** and **IVORY MOONLIGHT**. **SNOW FLARE** is a nice flaring, ruffled white with very little of the yellow on the haft. Rich's new **LIGHTS OF PARIS** is just the opposite of **SNOW FLARE**. It is a clear, wide, white with the yellow blaze spreading down the falls. This got fifty votes for an HM this year. Siberians are really picking up. **IVORY MOONLIGHT** (Spofford, not introduced) is a white that emerges from a greenish bud to disclose falls veined with "green" which fades to yellow. It is not a particularly good grower, but still very nice.

Blues are, by far, the most populous group of Siberians. **SILVERTIP** (Cleveland) is still a good iris in medium blue with light blue styles. **MANDY MORSE** (Spofford) is in the same coloration, but is a larger flower and a very robust grower. **TYCOON** (Cleveland) is a large flowered violet-blue with lighter styles and black whisker marks at the hafts. **GATINEAU** (Preston) is a "Great Lakes" blue with quite good branching and a very good grower. **JORETTA** (Carlson) is a wide blue, veined deeper, with a bronze-over-white signal and the good branching that many lack. **BLUE MOON** (Scheffy) is a very popular blue-violet with a flat flower.

There is also a wide range of deep and mid-violets. **TEALWOOD** (Varner '62) is a deep violet with flat flowers and a small signal. **CAEZAR'S BROTHER** (Morgan) is a fine deep violet flower that just grows

and grows. Two very fine deep violets are Peggy Edward's VELVET NIGHT and the similar CONGO DRUMS (Marx).

In the red or magenta Siberians, we find the hardest-to-establish ones, TOWANDA REDFLARE and the older ERIC THE RED, both do fine here. My favorite of this class is CARRIE LEE (Gladys Wiswell '62). It is an extremely good grower and "flowerer" and is a light red. The parentage is really interesting—White Empress x Pink Emperor. One that I hope to see is Wiswell's CLARET. This is a Siberian-louisiana cross, the parentage being Red Emperor x Dorothea K. Williamson.

Now comes the "pinks." These are not really pink but a lavender or orchid shade. MILDRED PECK (Spofford, not introduced) is one of the best. It is a lavender orchid with *siberica* type foliage that's unusual in a pink. FAIRY DAWN (Scheffy) is quite unique. It has white standards and pink-lavender falls. Tiffney 62-1 along with MILDRED PECK are the best for color as well as vigor.

The 40 chromosome is a group that hybridizers are just being in. *Chryso-graphes* seems to be the most vigorous species. *Forrestii* and *Wilsonii* are quite tender but are worth the effort because they are the only fully yellow Siberians. There are several new apricot and yellow 40 ch. Siberians coming from England. CAMOUFLAGE (Witt) is a lovely blue plicata Siberian that should be a good garden subject. Several irises have been made by crossing 40 ch. Siberians with Californians. SWIRLING MIST (Witt) is an excellent example of this.

With all these new Siberians, how can we lose?

THE JOYS OF AIS

Phil Williams

It is most evident that few members enjoy the full benefits of their membership. Who disagrees that the four quarterly *Bulletins* are worth \$5 to the iris *enthusiast*.

Only a small percentage of our regional membership attend regional spring tours and meetings. There is a continuous list of non-renewals sent to RVPs throughout the organization.

At the first regional meeting I ever attended, I was told that one of the more prestigious members informed the delegation that anyone who grew BLUE RHYTHM and BLUE SHIMMER didn't belong in AIS! (Some people have an incomprehensible abundance of "nerve!"). I grew both irises two years ago and still grow them.

There were slides of the new introductions. Why, I couldn't buy one \$25 rhizome. I had all but decided I was on the wrong bus. If it had not been for a friend who invited me to join AIS, I probably would have discontinued my new membership.

I soon found that the *majority* of AIS members were not connoisseurs. Through the informative round robin program I met such wonderful people. Many grew the 50-75c varieties I grew and many questions were answered. I honestly don't think there's a question the "birds" cannot answer.

I soon discovered that AISers are "good guys" and I was on the bus of hospitable learning.

The following spring off I trotted to Memphis. Most of the irises were relatively new, but the people were just grand. I *still* think it would be well to include gardens with a selection of the better older varieties.

One of the biggest joys I've attained from my membership was participating in a local society. This particular society was frantically struggling for survival, but under the direction of an enthusiastic president, there is much improvement.

The popularity poll has for years (I understand) been a buyer's guide for irises. This annual symposium for the last two years has removed many of the standard favorites. There has been an increasing lack of participation (voting) by the membership. Perhaps those with interest similar to mine (growing not-so-new irises) either refused to participate or decided to vote for new irises they had seen growing in others' gardens. It is our responsibility to not let down the gardeners who use the popularity poll as a buyer's guide." Last year, one of the leading flower gardening magazines listed only the top 25 from the poll and noted that the poll now consisted mainly of the newer, more expensive varieties. I suggest that we honestly evaluate our responsibilities, and make an attempt to please our fellow AIS members and the gardening public.

Too often we hunt for faults—they're always too easy to find. I believe the potential growth of AIS lies in the evaluation of the membership and the efforts of us to provide information that will adequately suffice.

When a prospective AIS member remarks, "I'm not interested in hybridizing and I'm sure that it would be of little benefit to me," tell him about all of the exciting activities in AIS—the round robin program, regional tours, meetings and judging schools; and all the wonderful people.

I would hope each AIS member would attend at least one regional meeting and associate with those who have a common interest. Join an AIS robin and learn with congenial irisarians.

By all means participate in a local society. If there's not one in your area, organize one! It's a barrel of fun. I know; I helped to organize one. The elusive dream I've had of winning "Queen of the Show" and learning about irises from guest speakers is about to come true.

So—chins up, everybody! We're the finest people on the globe!

The Hybridizing Bug Is On The Loose—Beware!

Joe Ghio

Hybridizing is addicting, so beware! Once started, it grows and you are not likely to kick the habit. If, in spite of the warning, you take the fatal step, it is essential that you set some definitive goals for your program, and that you limit your breeding to one or two color classes or types; for, under normal conditions, thousands of seedlings must be grown to achieve desired goals.

Whatever amount of money you have to spend, remember that with selective shopping, and taking extras into consideration, you are quite likely to get irises with list values of from two to three times your money amount.

PROOF OF THE PUDDING. In trying to select irises to purchase for hybridizing, it is wise to select proven parents. However, by the time an iris

has proven itself a dependable progenitor, it already is a minimum of five years old (from date of introduction). By the time you bloom your first seedlings from it, the originator is probably blooming its great-grandchildren. However, the important thing is that these irises can become the basis of your distinctive line of breeding, which should be a foremost goal of any hybridizer. A distinctive line will not happen overnight; it will take many years. Assuming a fairly rapid progression of successes, a line will not begin culminating (reaching its distinctive goals) until approximately ten years after the first crosses to establish the line are made. This should represent four to five generations.

So precisely what varieties would be recommend for hybridizing? Remember, one should use the best varieties that he can afford. FROSTED STARLIGHT, which became the basis of one of my lines, resulted in the cross of an iris listed at the time at \$1.00 (Chivalry) with one listed at \$1.50 (New Snow); that was all I could afford.

UN Sung Song. Some irises are good parents; others are poor parents; DESERT SONG was one of the top irises when we began hybridizing. We bloomed thousands of seedlings from DESERT SONG and its children, and discovered, the hard way, why it appears but infrequently in parentages: It gives poorly formed, weak substandard, and insipidly colored seedlings right into the third generation. To avoid such a happening, we will recommend only proven parents in each class, along with the top new varieties in the class. These new items are too recent to have proven themselves good parents, but they have the potential of being fine breeders.

DAYS OF BLUE AND GOLD. In my favorite color class—yellow—three moderately priced items, MOON RIVER, RAINBOW GOLD, and DENVER MINT, have proven their value as parents. While MOON RIVER has been an excellent parent for us, DENVER MINT may give a greater degree of hardiness. Denver Mint X Moon River gives outstanding seedlings, incidentally. The top new irises in this group are NEW MOON (a Moon River seedling) and WEST COAST (a Denver Mint seedling). Also exceptional flowers are ROYAL GOLD, DEBBY RAI RDON, and COUNTY FAIR.

Blues, whites, and violets should be considered together because of their close genetic relationship. Of course, the greatest parent of all time, SNOW FLURRY, belongs here, but Snow Flurry's day is past. CELESTIAL SNOW has spawned many fine irises, while a fine white like FLUTED HAVEN has given rise to nothing of consequence. WINTER OLYMPICS has already demonstrated its potency and will be a top parent.

PACIFIC PANORAMA is producing several fine things in blue and we are quite impressed with SHIPSHAPE, one of its children. STERLING SILVER will assure you of an abundance of ruffles in its children, but its color tends to dominate. RIPPLING WATERS can be used with a wide range of colors with good success.

Among the newer blues and whites, BABBLING BROOK, FLIGHT OF ANGELS, LIGHT FANTASTIC, and ROYAL TOUCH might produce an elusive worldbeater!

STITCHES AND KOOKS. The "Kooky" colorings particularly appeal to me, and by using COMMENTARY you are assured of some pretty unique seedlings. CAMBODIA, a much improved Commentary, probably

can be used with success. We can just imagine what PUNCHLINE should give rise to!

With plicatas, it is ROCOCO which provided the breakthrough in blue plicata breeding. WILD GINGER accomplished the same thing in the brown "plic" field. One would think that STEPPING OUT and RADIANT APOGEE would give good results, as should the primo-blue plicata to be released this year, CHARMED CIRCLE.

TANGERINE BOWL. Pinks are a different and broadly defined group. CLAUDIA RENE will give a wide range of excitingly different pink tones. ESTHER FAY is as good as any of the newer pinks, but it really has not proven to be an outstanding parent, unfortunately.

If oranges or apricots are your forte, one can not but be impressed with the number of times CELESTIAL GLORY and MARILYN C have appeared in parentages the last two years.

Among the newer ones in this class, LAURIE, MUSIC HALL, and PINK FRINGE hold promise in breeding.

SEPARATE AND REMIX. Several variations are available in the bitone-bicolor classes. MELODRAMA and WHOLE CLOTH made this expansion possible and can still be used to advantage. GYPSY LULLABY gave PIPES OF PAN which led to the new LIGHTNING RIDGE and BARCELONA for Opal Brown. LILAC CHAMPAGNE is rather new to say that it is a good parent, but it did produce the 1969 TOUCHE. And any iris which can spawn something with smoky-pink standards and violet-blue falls, with a tangerine beard, should be given the benefit of the doubt! Another new one which is producing unusual things (like amoena-plicatas) is DIPLOMACY.

BLENDED ON THE EDGE OF NIGHT. No one iris stands out among the browns as a top parent. INCA CHIEF was good, but its day is done. OLYMPIC TORCH has been used to advantage by the Schreiners, however. One is tempted to speculate that the Olympic Torch seedling, ETERNAL FLAME, will produce good offspring.

Among the "reds", the Schreiners are having good success by employing GYPSY JEWELS in their program. The culmination of their program arrived with the super-iris, WAR LORD. This variety should produce even finer things in the future in this difficult class.

With blacks, DARK FURY and BLACK SWAN have been used with some success. The two crossed produced the fabulous DUSKY DANCER, which in turn should produce even better things. EDENITE can be utilized with some benefit, as can ALLEGIANCE, though the latter will decrease the color saturation.

Just a comment on the "other thans". While ancient, CAPITOLA can still be crossed with the best TBs to obtain easy-to-grow "Mohr-breds". One cannot but be impressed with the number of times GREEN SPOT and KNOTTY PINE appear in median parentages.

AND AWAY WE GO! This report has been restricted mainly to TBs and no mention has been made of prices, since prices vary so greatly. Through wise shopping, a new iris along with the better older varieties, could be bought in a couple of classes of your choice. But, again the warning: Hybridizing is addicting, so beware! Once started, it grows and you are not likely to kick the habit.

FLIGHT LINES

Peggy Burke Grey, Editor

Applications for all Robins go to Peg Grey, 8191 Franz Valley Rd., Calistoga, California 94515

Control Tower Messages

AIS Juniors—Calling all kids—18 and under—You're welcome in *all* our regular regional and national Robins. There are also Twixt & Tween Robins for people 12 and under, Teens and Twenties, and a whole new flock of Robins will take off, directed by AIS Juniors, as fast as enough of you sign up. Larry Harder suggests you give them "groovy" names, with contests to decide the best names. We can find some great iris prizes! For robin fun and "irisy" pleasure, write **Larry Harder, Ponca, Neb. 68770**. We might add, for you serious future botanists and horticulturists, irises are a wide open field for research; a good robin is a wonderful place to start and receive encouragement.

Fledgling Robins: Already in flight, an **Arts & Crafts Robin**. Mary Ward, Little Rock, launched it; eye trouble prevents her from directing, so it's flying with an Artistic Division director as it gathers members; all sorts of crafts and iris artwork are discussed; it can take a few new members. **Blue-bearded white irises** is the topic for a new hybridizing Robin to be directed by Margaret Hale, Virgil, Kans. Hurry to get on the route list for this one!

Fragrance—where has it gone? Jack Cochran, Revere, Mass., invites everyone interested in studying, classifying iris fragrances, and developing new fragrant varieties, to join a Robin on the subject.

Headstart Hybridizing Robins, for those who want to learn but are leery of floundering over their heads in regular Robins; these fly fast with few members, tutored by experienced iris breeders. Oren Campbell, Little Rock, Ark., and Lorena Reid, Springfield, Ore. are directing the first two of these cram courses.

Region Robin Representatives: Two new ones have been appointed by their RVPs. Hazel Bartholomew of Region 1 (recovering nicely from surgery) has turned over her duties to Barbara Whitehouse, Plainville, Mass. Both Region 5 has just appointed Barbara Kirkland, Moore, S.C. All three new RRRs are fairly new to AIS, with tremendous enthusiasm. Add some sparkle to your iris hobby; join a Robin in your Region. Write your Region Robin Rep or your RVP and get to know your fellow iris enthusiasts!

International Robins: Jean Ralls, Edmond, Okla., is our new division chairman. She's done a magnificent job starting many new ones, will assist the present division directors, overseas chairmen Gordon Loveridge and Lucy Delaney (for medians), and other special iris divisions. A new Species and Natives international will take off when chairman Roy Davidson returns from Japan. Results of a survey of all our international robins

by Herb Graves, Friend, Kans., (he did a whopping job!) point the way to improved IRs. We can take many new North American members.

Japanese Iris Robins: Bob Swearengen, long time chairman, has retired to concentrate on his extensive hybridizing program and recoup from surgery. Bob's done a wonderful job; we're happy to know he'll be available as a consultant. He turns the office over to Eugene Wagner, Columbus, Ohio, one of the division's top directors. Gene's an Ohio State University horticulture grad, on the staff of Columbus Parks and Recreation Dept., has grown all kinds of irises since age 12; worked with the Japanese for 13 years. We're delighted to have such talent in this important division.

About Japanese Irises

Gene Wagner reports: "Visited the garden of Mr. Russell Isle, which was quite an experience. He grows his Japanese irises in 8" pots and gallon cans, set in 1½-2" of water. The plants and flowers were magnificent, grown by a method similar to that the Japanese use. A shallow wooden box is lined with plastic. He plants a single fan in a pot of 'muck' after the bloom season. These are then set in the 'pond'. When freezing weather arrives pots are removed from water and mulched with leaves. As soon as growth begins, pots are put back in the 'pond.' After plants are 4" to 6" tall they are fed liquid Ortho-Gro 12-6-6 fertilizer weekly until the bloom-stalks are about halfway up. The resulting blooms are perfection. This method of growing Japanese irises should be welcome to those with soil problems. The one drawback is low bud count."

Bill Ouweneel, Terre Haute, Ind., edits the Society for Japanese Irises publications. He talks about 'blight'. "It may be a symptom and not a disease. I know it only by its appearance—the yellowing and drying foliage, after runty growth, late in the season usually. Individual plants in a garden are affected with adjacent plants perfectly healthy. The use of Agrimycin is noted in the Society for Japanese Irises *Review*. Plants I treated produced 47 rhizomes; 8 showed no sign of live shoots and died after being potted and grown under lights during the winter; 14 rhizomes produced healthy plants and have shown unusual vigor in my garden since they were set out early in the summer. I have been unable to find any correlation between Agrimycin treatment and results. The vigorous growth observed may be due to growth under lights throughout the winter, 24 hours a day."

Bob Swearengen talks about 'pleating': "The accordion pleating occurs when plants are in fast growth and run out of water for a period of time. Partial growth continues on the new center leaf, but until it has enough moisture to emerge from the fan it just piles up in its space. When it gets moisture it grows out."

Bob reports that he plants his Japanese seed in flats in February; covers with burlap. "Don't let the soil dry out. When the plants start coming up, take the burlap off. Keep them moist. Transplant any time after they are up to 6" tall or by Sept. 15th."

Some excellent bloom reports from last summer may help select varieties to try. From Eleanor Westmeyer in Stamford, Conn. "My garden was judged for Japanese irises on July 7. This was peak of my bloom and quite a few late bloomers that hadn't been seen before were just starting

to bloom. The judges liked Payne's BLUE NOCTURNE and DANCING WAVES especially well. Many comments on WOUNDED DRAGON, a handsome white double spackled with red-purple. Among the new Payne varieties: SPIRIT LAKE, beautiful light blue, quite a rare tint; VIOLET VOLTAGE, very rich color, seemed to have a darker border around the falls; PAINTED PRINCESS, delicacy in color, white, 9 petals edged phlox pink. KARAHASHI sunburned so badly I decided to throw it out. It is an opulent plant and one of the parents of LEAVE ME SIGHING, which also burns a little here."

From Bee Warburton, Westboro, Mass.: BEJEWELLED MOGUL, dark rich red-violet with neatly arranged small standards, huge round, ruffled falls with a gold blaze coming to a sharp point, surrounded by a faint blue haze; GOLDEN CAPRICE, heavily white-veined on bluer coloring; ORIENTAL AMETHYST, lovely lavender color, deeper around golden blaze, huge, nicely formed; SILVER CASCADE, 6-petaled with wide white stripes on blue, nice shape; TOKEN OF FRIENDSHIP, beautiful red-purple with red-purple veins in white and a silver-white edging, a bit of blue setting off the blaze which isn't as deep as orange, a marked white edging on the small, neat standards, red-purple style arms; DAZZLING DEBUTANTE, huge red-purple falls with white-purple veining and separated by an inch between each vein, tiny standards. This iris looks better from a distance. DANCING WAVES, very nice single with pretty blue-purple, nearly solid purple veins edged white, standards red-purple edged white, style arms deeper purple; PREMIERE DANSEUR, much like Dancing Waves but double, red-violet standards, style arms petaloid, which are becoming. IMMACULATE GLITTER I thought was the best in '68, nice purple with white wire edging, no petaloids, little ruffling on style arms.

From Gene Wagner: "PASTEL PRINCESS, shimmering light violet; CONFETTI SHOWER, queen of the garden with its light rose-pink effect; COBRA DANCER, a standard in plum purple; SCHERZO, single, plum color with white splashing, the best ever; JOYOUS CAVALIER, huge single white with deep violet feature, a knockout. REIGN OF GLORY, billowy blue and white creation, usual good show; IMPERIAL PALACE and IMPERIAL ROBE, both in rich purple, performed well; SNOWY HILLS, fluffy flower of snow white, a standout in late season."

From Bob Swearngen: GREAT MOGUL, a long-season bloomer is a potential parent of rebloomers; most may be single. An important note for those importing seeds from Japan. Seeds marked 'Kakitsubata' on *I. laevigata* gives the Japanese name for the entire group, as 'Hono Shobu' is for the whole group of *kaempferi*."

Artistic Division

Two Designers' robins for iris arrangers are swiftly flying. A few clues to the discussions: Lillian Terrell, Wasco, Cal., notes "Flower arranging has changed since my first arrangers class in '51. At that time real flowers were used; in today's arranging other things enter in, which at first I did not like but I'm beginning to think them rather nice." Gretchen Smith, Twin Falls, Idaho, was delighted to find many ideas for her arrangers notebook. Ethel Baukus, West Allis, Wis., says horticulture is an important part of design because you only get back what you put into your work!

If the materials are poor horticulturally, you can't make a decent design, regardless of how you arrange it. Hattie Hubbard, Olympia, Wash., remarks, "Irises supply many forms of arrangement material besides the flower: seed pods, both open and closed, in many sizes and shapes, leaves for horizontal, upright or curved line material. Driftwood and irises combine well." Mrs. J. Donald Puett, Baxter Springs, Kans., says one of her problems is holding irises and driftwood firmly. In Minneapolis, Mary Duvall, "I love to work with driftwood but very little is used here. At our 1968 iris show, out of more than 50 entries, I can't recall anyone else using driftwood." Margaret Taylor, Tribune, Kans., "I like using driftwood in my home and add different fresh material for a winter arrangement, geranium blooms and some houseplant greenery." In Wichita, Burdella Rhodes remarks, "I think irises are one of the hardest to arrange, even though they are my favorite flower. Table irises (miniature tall bearded) are best for arranging." Jeanne Price, Blacksburg, Va., "I find that by removing the back fall (which does not show anyway) a better placement may be made; it works especially well in mass or line-mass design." Ginny Burton, Greene, N. Y., from a study on dimension says, "The simplest way to obtain depth in an arrangement is to finish it in the back." Jane Merritt, Colquitt, Ga., "Our town is so small that we have our show with the Donalsonville club. We have some really good arrangers here but they are all novices." Dot Aldrich, St. Petersburg, Fla., "I think we should have more classes for corsages in our flower shows. Here in the South they are very popular and some of the ideas are fantastic." Glenda Tudor, St. Charles, Mo., notes that she's a real beginner, entered her first show a year ago and got a blue and a white ribbon which put her on cloud nine.

Hybridizers and Pollen Daubers

Lovenia Callis, Bon-Air, Va., states her goals are more fragrance, better stalk and branching, blooms that hold up well and persistent bloomers. "A Dykes winner has no place in my garden if it will not bloom well." Fred Spahn, Dubuque, Ia., one of our top flight robin directors, has about 600 seedlings to evaluate each year. He especially likes plicatas and has had some excellent results using TEA APRON and MEMPHIS LASS. He uses and recommends using ESTHER FAY for pinks, RAINBOW GOLD, MOONCREST and KINGDOM for yellow, MORNING BREEZE, EVER AND EVER and AMETHYST FLAME for lavender.

Discussing hybridizing vs. pollen daubing, MayBelle Wright, breeder of the beautiful BB MISS RUFFLES, says, "I daub pollen myself at times, but since a 6-year old could do this, if shown how, I don't feel this makes a hybridizer. If, after the initial cross, the pollen dauber uses the resulting seedlings in further crosses with a particular goal in mind, then I think he becomes a hybridizer. If there is not thought involved beyond 'What would happen if I cross this with that?' I think he should admit he is just having fun and thank Lady Luck for any success he may have. I'd rather raise seedlings from planned crosses; it takes just as much hard work to grow a hundred dogs as a hundred seedlings that just might turn up something good."

Allen Ensminger, Asst. RVP and head of judges training for Region 21, lives on 40 acres near Lincoln, Neb. He's been growing irises, all sorts of

them, over 20 years; says he's only been hybridizing for 11 years, mostly TBs, and describes delectable color ranges like raspberry, lilac and strawberry. He also works with spurias. "In '67 we had the summer's hottest weather in early June. This heat plays havoc with crosses. There are few takes, few seeds and there is even some indication that germination is poor in these late sets. Best germination is in cold wet springs with many frosty nights that occur even into the second week of May. Always at Christmas time the seed bed is covered 3" deep with pine needles. This packs to about 1" thick by spring and by April 1 the seedlings come right up through it. It keeps the bed moist and cool. We sometimes even shade the bed on hot days to keep germination conditions as long as possible.

"I've accumulated about 8 or 10 BBs from TB crosses of previous years. These are 'runts' but pretty. They do well in the foreground of the flower beds and bloom profusely. I believe at least three may be diploids because flower and foliage were much smaller than in sister seedlings. I have one race of TBs that soon will all be BB, due to inbreeding. We're trying for a red, white and blue; the seedlings are getting shorter and shorter. We're also running into infertility and get fewer pods and fewer seeds per pod. We may have to start another line with blue plicatas and TB whites to regain fertility so we can complete this project. Years ago we started originally with BELLE MEADE and FROST AND FLAME.

"Only within recent years have we made crosses involving TB with SDB or MDB. I know very little about this but was thrilled with one group of 49 sister seedlings that bloomed in '68. These were (HAPPY BIRTHDAY x CRETICA) X GARNET TREASURE: (Minnie Colquitt x pumila). The array of colors from this cross was amazing. All had the spot pattern; 5 out of the 49 were yellow amoena. The tallest was about 26". Some of these one-year-old plants had 6 bloomstalks. Are they IBs of BBs? RIPPLING WATERS was the only TB that would cross with them, but I did successfully make quite a few crosses with these seedlings and those from another cross of (PATIENCE x Welch N503 dwarf.) We have a little over 200 seedlings of these crosses. They should be interesting? LILLIPINKPUT x red-bearded red TB; DEBBIE ANN X GRACE NOTE; JUNGLE SHADOWS X red-violet pumila; JUNGLE SHADOWS X CRETICA; LACY LU X CRETICA; DRUMMER BOY X pumila. Foliage in all these is quite short, not over 8 to 10", quite surprising for the LILLIPINKPUT x TB cross."

MayBelle Wright outlines some projects: "Try to cross BB x BB, IB x BB or large SDB x BB, for a starter. Size is the big problem in BB breeding. Most BBs crossed to TBs give very few seedlings that are short enough. With so few to select from, it's a long way to *good* BBs. I believe that realizing how far we have to go to make the BBs a distinctive class is the first and most important step toward our goal.

"I don't know another TB that throws small things as often as RIPPLING WATERS, but PROGENITOR derivatives do throw them because of the dwarf species background. Most pinks also throw small ones occasionally."

Sarah Wing Highley remarks, "I am evolving a line of Fay and Hall pinks crossed with RIPPLING WATERS, several good blues and OLYMPIC TORCH. Seedlings from Olympic Torch and a Fay golden yellow seedling might be fine TBs all by themselves. CHRISTMAS ANGEL,

CREAM CREST and CANDLE FLAME are getting a workout. I am partial to creams and gold shoulders, or hafted creamy whites. This year my list of must-crosses for BB involves RIPPLING WATERS X BLACK FOREST, TULARE X BLACK FOREST, DARKTOWN X RIPPLING WATERS. *I. aphylla* x BLACK FOREST should give good blue-blacks and I am tempted to try *aphylla* X SNOW FLURRY or another dominant white as a parent for BB."

Athol, Mass., has two hybridizers who probably represent the extreme age limits of Robin members. Lud Knechtel at 83 years young is producing some terrific red seedlings from pink lines, readying them for introduction. He's very active in robins; just joined one of Fred Judy's Red Specials. A bit younger, not yet 15, is Kevin Vaughn, an AIS Junior loaded with iris savvy. His letters are full of really interesting news. He also breeds day-lilies and sempervivums (hen & chickens). His 'Silvertone', blue-silver with red tips, won the Drown Award in 1968. He's also an artist; his robin letters are illustrated with charming line drawings of iris varieties and other flowers and plants. He comments on some things he's liked especially well. "MOHAWK TRAIL (Markham '68) was the outstanding TB. It is a 34" deeply ruffled bronze with deeper hafts, excellent form, good grower; FROSTED CUPS Warburton '66), sib to DILLY DILLY, a well-branched white IB with self beard, fine foliage and increase; LAKE MATTAWA (Gadd '67) from a blue seedling X CAPITOLA, a light blue with near black beard, rounded onco form; one take from HIGH ABOVE X LAKE MATTAWA had 6 increases on a 1-year plant! ICE FAIRY (Witt '66), a pale blue amoena MTB of excellent form, well proportioned, a little bunched, though on a first-year plant, yellow beard."

Esther Terrill, Burlingame, Kans., is another long time robin member who always has interesting things to report. She notes that she takes lots of slides of seedlings for winter study and evaluation. "I never have time enough while working during iris time to really sit and enjoy their bloom. I like to go out and either flop on the ground or take a stool and sit and just look. This way I can spot an iris I may have missed just walking through the rows. One can see how its color attracts out of the mass of color, see its form and branching from a distance, and see its garden value. Then when I go up to it I can pick up the fine points on close-up. But if one has only an hour of daylight to make crosses it is imperative to make these first."

"I have had quite a few MTBs (table irises) show from crossing the diploids X MTB. This year I tried selfing or sibbing, or using MTB again. So will see what these will give.

"The different *mellita* crosses were interesting. One cross had some pretty amoenas in various tones of blues and some were light or medium blue. (LILLIPUT x BLUE SPOT) X bee gave some real cuties with very nice form. I numbered three, one red with lots of lavender blend, one blue with deeper blue blend, one yellow with maroon spot. I guess I'll have to have another year's bloom to really be sure the little amoenas will remain dwarfs."

Bernard Hamner, Perris, Calif., is working with aril-meds. "KALIFA GULNARE, an arilbred, with POGO, BRASSIE and SMALL RIPPLE, all medians, should prove interesting. The foliage is very short with aril

character, which was our objective in making the cross. Most of this line has set buds, so we're hopeful of getting a good dwarf arilbred."

Jerry Rutledge, Waseca, Minn., remarks, "I've almost talked myself into turning my attention to breeding spurias. Several reasons: they seem to be easier to grow; have less rot and disease problems here. There seem to be so many possible combinations that have not been bred yet."

Breeding the Beardless

Clarke Cosgrove, San Gabriel, Calif., AIS Exhibitions Chairman and iris expert-at-large gives the correct procedures for proper pollination of beardless irises. "Anthers bearing pollen should really be gathered *before* the flower opens by opening the plump bud and removing them before the pollen dries and is scattered as the flower opens. The stigmatic lip is not quite ready to receive the pollen in most flowers when they first open. To be terribly scientific about it, the falls should be ripped from the bud and the anthers removed, whether this is to be pollen parent or pod parent. The anthers can be stored in paper or plastic envelopes, vials or in gelatin capsules. Capsules keep pollen grains dry and pollen is viable much longer. On spurias, the stigmatic lip is rather small; it is difficult to see if the surface is sticky-shiny, a condition the morning after the flower opens naturally. If the falls have been removed there is less likelihood of insect pollination and you can spot the flower you want to pollinate. Bagging the flower with a plastic cover also prevents accidental crossing but it is not absolutely necessary.

"The condition of the stigmatic lip is most important. I have been hoping (without success) to have sufficient time to try experimentally a few boosters for nectar. With the TB, the stigmatic substance from some sure-fire pod parent (such as SNOW FLURRY), rubbed on the stigmatic lip of a more difficult parent, apparently has increased setting. I wonder if a dilute solution of glucose or a wetting agent would have the same effect if sprayed as a mist onto the lip. The pollen can be smeared on directly from the anther or applied with a small brush or toothpick.

"Don't be surprised if the flower you tagged fails to set and the one directly below develops a fat pod! Don't be misled; you didn't tag the wrong one—just some sly insect knows more about pollination!"

Jerry Flintoff, Tacoma, Wash., another young irisarian, queries, "Several spurias show external virus signs (i.e. white streaks on leaves.) Should they be destroyed or shall I keep them as long as the flowers aren't disfigured and the growth is satisfactory?" Clarke responds, "There is no definite answer about the virus in spurias. Seemingly there is little evidence that it spreads. It seems to be restricted to certain varieties and although I would be reluctant to pass on a virus-infected plant, I wouldn't hesitate to keep it in the garden if it continues to produce."

The Siberians

Kevin Vaughn really goes for them. "Don't say you won't become enthused over Siberians until you've seen WHITE SWIRL or EGO—wow! Siberians come in many colors: white, yellow, apricot, copper, red, magenta, pink, mauve, all shades of blue, violet, purple, black and also amoenas, bicolors, bitones and plicatas. I planted around 4,000 Siberians seeds so should have at least a few seedlings."

Lorena Reid, who operates Laurie's Garden in Springfield, Ore., one of

the few commercial sources for many Siberians, reports, "GATINEAU, which I'd had for 3 years without blooming, only had 9 leaves on 3 tiny fans when spring began; it finally bloomed and I really like it. The petals are much wider and larger than my other light blue, MOUNTAIN LAKE. I only saved 2 of my Siberian seedlings; one is a dwarf about 8" high, pale lilac in color, a real nice one. The other was taller, but short for Siberians, a pale yellow in bud opening to waxy yellow-white."

From Jewel Rogers, Yates Center, Kans., "I had a lovely crop of Siberian bloom, much to my surprise, since they'd been reset last year." Lillian Bourne, Barberton, Ohio, says, "I took some Siberians for the Region 6 spring meeting show. They wouldn't consider them as individual colors, so red competed against all the other colors and *graminea* was considered one of them. It is actually a spuria species. I enjoyed the meet very much, the tours, the food and meeting the people."

Dorothy Hamilton, Beverly Farms, Mass., "I have a little clump of CARRIE LEE that is a color splash! It is not pink, but has an illusion of orchid-pink, a color I have not seen in Siberians previously." Phyllis Zezelic, Massapequa Park, N.Y., is, along with Peggy Edwards, guest iris chairman for the '70 convention, reports on some she preferred: "The one new Siberian outstanding in all the gardens here was LIGHTS OF PARIS, a beautiful white with yellow shoulders. RUBY WINE and SPARKLING ROSE' were also attractive so I acquired them all this year. Also bought Peg Edwards' VELVET NIGHT, a beauty like black velvet, and MOUNTAIN LAKE, a lovely blue."

A Matter of Culture

Leda Christlieb, Severy, Kans., has something very well worth memorizing. "Not only different climates, but different soils affect the height and colors in different varieties. My sister lives about 20 miles north of me, and we have compared bloom for about 10 years. Her ground is more sloping, lighter soil than mine; her irises usually have larger blooms and deeper coloring than the same varieties grown here. Her bloom is about a week later than mine, too.

"Many factors are involved in the question of first-year versus second-year bloom. First, is the rhizome mature when dug? Irises go through a dormant period just after they finish blooming; those dug then have not formed their buds for next year's blooms and due to the shock of transplanting, they do not become established in time to form buds for next year. To me, this is the reason why later transplanting results in more first-year bloom. However, other factors enter in. Has the parent plant been well nourished? Small-for-the-variety rhizomes sometimes indicate a lack of nutrients, and that rhizome hasn't had strength to set buds. It will do well to stay alive. Conversely, hugh rhizomes that result from over-feeding may winterkill as the result of the iris being in a growing state when it should be resting. Another factor, has the rhizome been dried for several days for shipping, then spent several days in the mail? Or was it merely dug, divided and reset? And what is the state of the soil into which it is transplanted; what moisture does it receive? All of these things enter into the picture, making it extremely hard to predict what will happen when the rhizomes are planted."

In Davenport, Ia., Frank Foley tells about handling aril species in the

Midwest. "The pure arils were planted as late as possible last year and I replanted them the second week in November and mulched them with straw. I packed the ground but did not water them since the soil was moist. I know that one should water to settle the soil and remove air pockets, but a good rain took care of this for me. They were then covered with builder's paper which was removed in spring."

Tom Ford, Silver Spring, Maryland's most enthusiastic medianite, writes that he can't emphasize the super-satisfactory way the smaller irises acclimate themselves to a garden. They begin to put up new increases and leaves very soon after planting. By early September MDB and SDB already will look like one year plants. A 5-10-10 fertilizer with superphosphate added, worked to a depth of 12", seems to account for the excellent growth.

Color Descriptions

Esther Terrill comments on something that bothers everyone who ever read and tried to translate a color description. "I always get so much good from various robin discussions on iris colors . . . the difference in calling the purple tones by different names. For example, which is deeper in color, violet or purple? We need examples of TBs preferably, so that we can 'see' the color. VIOLET HARMONY for instance is violet? PATIENCE is violet or purple? I have the Nickerson color fan, but those colors are so 'dead' when one puts them by a vibrant, lively color of an iris petal, it is almost impossible to call them by name that way. If we could get some good plan of a comparison color chart, it would be easier for most iris people to talk about a color. I'm frustrated when they describe the new oranges as 'marigold orange'. An orange marigold is different than the iris 'marigold orange' to me. But I do know the color of TOP FLIGHT, CHERIE, PACIFIC PANORAMA, etc. If standard and well-known iris varieties are used as examples, I think we could picture colors in our minds fairly well, even if we have never seen the iris, whether dwarf, IB or TB. Am I reaching out too far?"

To answer the lady's problem, and an invaluable aid to all of us, is a forthcoming publication by Bob Huble, president of the Southern California Iris Society and the Reblooming Iris Society's western section, now in the works. He's doing a tremendous job analyzing the terminology of color and the many color charts and systems now in horticultural use, and before too long we hope to see it available.

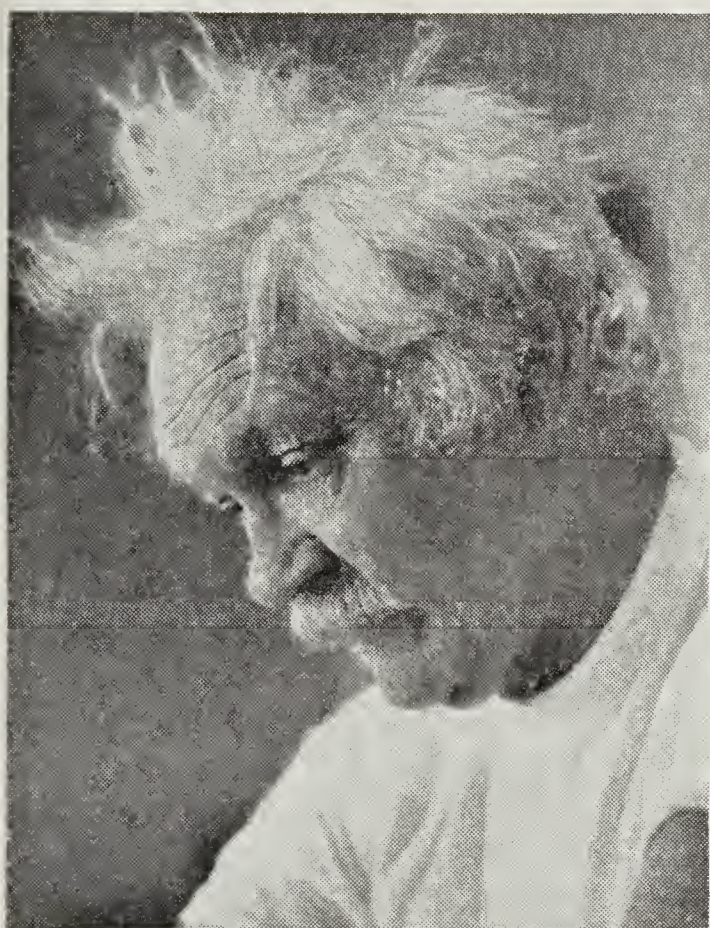
IN MEMORIAM

ROBERT S. CARNEY

Just as this section of the *Bulletin* goes on the press, we are saddened to hear of the death of "Bob" Carney. He long will be remembered for the time and the energy and the substance he gave so devotedly to the Society during his term as president and board member.

TOM CRAIG

Earl H. Donovan



Tom Craig died of a heart attack February 8, 1969.

He had already registered his new introductions for 1969. The plants had been set out in the fields for the growing season. His wife Fran and their five children completed the work on his catalogue and will see the crop through to harvest.

Flower hybridizing and growing was Tom Craig's second career.

It was as an artist that Life Magazine sent him to cover the United Nations invasion of Italy. His assignment: find the great master works of art not destroyed by war. He crossed the Arno and entered Florence before the Allied Army took that Flower of the Renaissance, stubbornly held by the Germans.

After the war, he began hybridizing as a hobby on land near his Mt. Washington studio in Los Angeles.

As his reputation as artist and art teacher blossomed to something more than regional, he turned his back on his successes. Perhaps it took more courage than crossing the blooded Arno River in the middle of the night.

With five children, he quit his teaching position and bought a raw mountain near Escondido. No water, No road. They put in the road. They built a collection pond for water. Today it is Rancho de las Floras.

These blooms are Tom Craig's monument. He would prefer them to monuments of marble. "Marble is a dishonest material," he said. "Today, the ruins of Rome are made of brick. The marble was nothing but veneer that washed away.

These blooms are honest. They are beautiful. They are alive. They were made by Tom Craig.

STAFFORD LELEAN JORY: 1889-1968

Roy L. Oliphant

To his friends, and they were legion, Stafford Jory bequeathed many happy memories of fun-filled trips to see irises or capture beauty on film; of "at homes" to meet the great or near-great of the iris world; of association with a good and considerate man who had an integrity that could not be

compromised, an innate sense of beauty and a lively sense of humor, tempered with kindness.

To the world, Stafford left a record of excellence, as architect, teacher, gardener, photographer, gentleman.

He entered the University of California at Berkeley in 1908, as a student of architecture. It was an exciting and stimulating time, a time when the "Ark", under the direction of John Galen Howard, was bursting at the seams with the yeasty ferment of new ideas and new directions. In spite of his work-study load, Stafford found time to captain the varsity basketball team and to receive his A.B. in 1912, his A.M. in 1913 and Graduate in Architecture (the highest degree the university granted in this field at that time) in 1914. In 1917 he accepted both a position on Dr. Howard's professional staff and an instructorship at his university. World War I soon intervened, and Jory enlisted and taught, as an officer, at the Artillery School in Virginia. He returned to his teaching and professional posts at the end of the war.

On January 17, 1920, Stafford married a former classmate, Grace Weeks. She too held an A.M. in architecture and was a practicing architect in her own right. The young couple spent eight months of 1921 in Europe, traveling and studying architecture.

Stafford Jory rose in the academic ranks to full professorship in 1944, and retired as Professor Emeritus in 1956. He was involved in the design of many of the buildings on the campus, including Wheeler Hall, the Doe Library, the Law School and the Athletic Field. He taught upper division and graduate courses in architectural design and lectured on the classical period of the history of architecture.

The rapport between students and professor was great. One of his students wrote, "He was most respected and loved by his students . . . taught them more of the absolute basics of composition and the underlying principles of architecture than anyone else. He inculcated his own sense of beauty into young people and was a great influence not only on their learning but on their characters."

Stafford Jory's interest in irises came early, soon after his arrival in Berkeley from his home town in Stockton. He met Carl Salbach, and through Carl, Sydney Mitchell. He caught Sydney's enthusiasm and benefited from his advice. Stafford first tried his hand at hybridizing with *plicatas*. Of this period Professor Jory used to laugh and say that he should be given credit for the success of Mitchell's *plicata* program; according to Jory, Sydney thought so little of Stafford's work along this line that, to show Stafford how it SHOULD be done, he started breeding *plicatas* himself!

As he became more interested in hybridizing, Stafford's objective turned to oncobreds. His own explanation for this, in typical Jory understatement, was that few oncobred crosses "took" and that few of the seeds germinated, so that he never had more seedlings than he could grow on his small place. Actually, the sterility barrier in WILLIAM MOHR fascinated him, and he worked long and diligently to break the barrier. He and the introducer of MOHRSON were the first to do so. Stafford's GRACE MOHR and MOHRSON both were introduced in 1935.

Second generation crosses of GRACE MOHR with Reinelt's CAPITOLA

(Stafford persuaded Reinelt not to throw Capitola on the compost heap, and saw that it was introduced.) gave a series of Mohr irises with delightful names—MOAB, GAZA, ASKALON, HEBRON and CANAAN—which, as Tom Wilkes so aptly remarks, were “subtly muted blends . . . flowers of refinement and yet elegance.”

Other Jory oncobreds were MT. ARARAT, a small plicata from Grace Mohr X Miss Muffet; and the popular award winning Purissima X Capitola crosses, MORNING BLUE and BLUE ELEGANCE.

Jory's own modest appraisal of his hybridizing was that “it resulted in a lifetime of disappointment, but it was fun.” On the other hand, Tom Craig said that Professor Jory had inbred the ‘Mohrs’ with greater success than any other hybridizer.

Stafford was a keen judge of irises and an honorary judge of AIS. In 1960 he was chairman of the International Competition jury, in Florence, Italy.

No article on Professor Jory can overlook his interest in and his devotion to the camera, where his love of beauty and his sense of design were given full expression.

Stafford never lost a youthful zest for life. He overrode all physical infirmities, with a love for action, an ear for a good joke, an eye for a pretty girl, a compassionate heart. He died suddenly of a heart attack, while undergoing a routine physical checkup, after returning from a picture taking trip in the Pacific Northwest. He was seventy-nine. Grace spoke for all of us when she said, “Now he will never know the pain, the frustration of growing old.”

IRENE HARPER SILFIES

Irene Silfies died April 7, 1969, after an eight month illness with cancer. She was an extremely dedicated irisarian, a member of MIS and AIS, and maintained a regional display garden where she lovingly grew an extensive collection of median and tall bearded irises for over thirty years. She was actively involved in Robin work all of her iris career and most recently served as General Hybridizing Chairman for the AIS Robin Program. Her hybridizing program was making notable advances in what she termed as her “gold or gilt-edged” blue lines. GILDED PIXIE and GOLD BRAID are irises that have been registered as a result of this breeding line. Seventeen other irises have been registered from her various breeding lines. Several of these are to be introduced into commerce and the proceeds donated to the Scientific Committee in her memory.

Irene will be remembered with love and sadly missed by all.

CHARLES MORGAN

A long-time member of AIS, Charles Morgan of Flint, Michigan, passed away on February 23, 1969. Mr. Morgan, one of the founders of the Central Michigan Iris Society, was an AIS Honorary Judge. Always liberal with his time and effort, he had been a mainstay of local irisarians. He had grown irises for many years, and had done extensive hybridizing. Two of his registrations which gained local renown were MEIN FRAU and SERGEANT BOB, the latter named for a son who lost his life in World War II.

CLAUDE W. DAVIS

Claude W. Davis, hybridizer and commercial grower of Louisiana irises in Baton Rouge, Louisiana, died March 23 at the age of seventy-four. He had been a member of AIS for over twenty years, serving as RVP of Region 10 from 1954 through 1956. He became interested in Louisiana native irises in 1938, and was an active member of the Society for Louisiana irises since it was organized in 1941. He served as president of this Society for two terms, and was recognized in 1951 for his outstanding service to this Society.

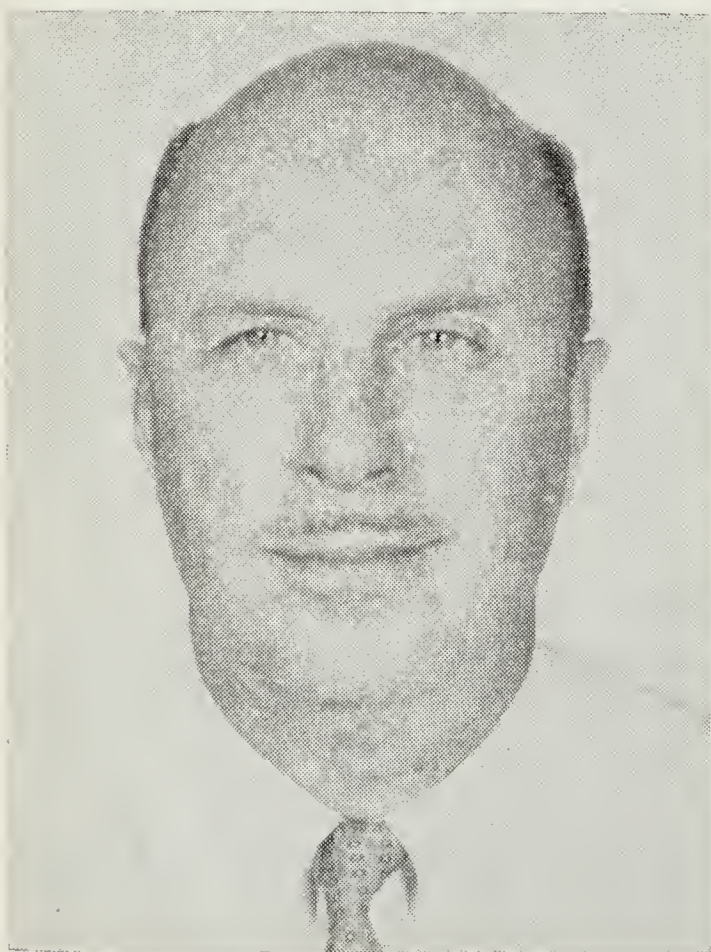
Mr. Davis retired as professor emeritus of agricultural extension education at Louisiana State University in 1955, after more than thirty-five years in that service. He served in World War I, and again in World War II as a major in the capacity of a specialist in agriculture in England, France, Germany, Italy and North Africa. He is survived by his wife, one son, six grandchildren and three great-grandchildren.

IN MEMORIAM BEQUESTS

Mr. Emanuel Dannett of New York sent a check of \$10.00 to the Scientific Fund in memory of Johnny Cassebeer.

The Central Valley Iris Society (Calif.) sent a check of \$10.00 to the Scientific Fund in memory of Conrad Eggle.

ANNOUNCEMENTS



New Median President

Lee Eberhardt

Lee Eberhardt of Springfield, Ohio, is the new president of the Median Iris Society. An industrial and mechanical engineer, his work has brought travel into some fifty countries, and he has seen irises in some unusual places. He started growing irises with a ten dollar Cooley special about 1950, and avers that he has expanded to near bankruptcy. He has been an AIS judge since 1962, maintains a MIS display garden, grows about 500 varieties of all kinds of irises, and had done considerable hybridizing in the median class.

The New England Iris Society has sent a check of \$50.00 for the Scientific Research Fund.

We are intrigued with the Region One list of tours, covering five week-ends, designed to allow iris growers of the Region to see many different kinds of irises, and located at widely separated geographical points to bring as much local interest as possible. It is a well-designed plan.

PHOTOSTAT COPIES OF REGISTRATIONS

To those who have inquired: We have on file most of the original registration applications since 1960. These often contain more complete information than the necessarily cryptic published registration information. For those seeking to trace and identify cultivars, we can make photostat copies of the original application for twenty-five cents. Send money and requests to the Omaha office.

TWIN CITY IRIS SOCIETY

As an indication of the growing interest in reading material on irises, we have had correspondence on the feasibility of Sections, Regions and Affiliates exchanging publications on the editorial level. We think much of this is done now, but there seems to be gaps that might be filled to mutual advantage. One of the good state publications that is interested in exchange is the *Twin City Iris Society News and Views*. Write Mary Duvall, 4019 — 41st Ave. S., Minneapolis, Minn. 55406.

WANTED

Copy *Garden Irises*, in good condition. Rhizome of PRISCILLA, BB (Whiting '42.) Sources of seeds from plants of evansia group, mainly colors of *I. Cristata*, other than the regular blue. Write Harry Bishop, Box 204, Basket St., Huntington, Mass. 01050.

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If there is a change in the name of the president of the club, be sure to notify Mr. Varnum, Mr. Benson and the editor of the *Bulletin* at once, so that the proper name and address can appear in the *Bulletin*, and that the *Bulletin* can be mailed to the proper address.

IRIS SLIDES FOR RENTAL

The American Iris Society maintains numbers of excellent sets of iris slides for rental. Each set contains 100 slides, 35mm size. A list of the names of the irises accompanies each set. Ideal for a program for your iris meetings and garden club meetings, these slides are a fine way to study the new irises. Are you considering, or would you like to see, some new irises? What better way than to rent a set of slides and keep informed on the newer varieties.

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Requests for slides should be made well in advance for proper scheduling, preferably 30 days or longer. Include a second date if possible. Give the exact date desired so that slides can be sent insured airmail. They are to be returned in the same manner. The rental fee is \$5.00, payable in advance, for each set of 100 slides. Make checks to the American Iris Society and mail with your requests to:

ROBERT SCHREINER, Chairman, Slides Committee,
3785 Quinaby Rd., NE (R. 2), Salem, Oregon 97303

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THE BULLETIN

of the

AMERICAN IRIS SOCIETY

No. 195

October 1969

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The *Bulletin* is published quarterly by The American Iris Society. Publishing office 2315 Tower Grove Blvd., St. Louis, Mo. 63110. Second-class postage paid at St. Louis, Mo., and at additional mailing offices.

Communications regarding membership in the Society, advertising, and other items of business should be addressed to Mr. Clifford W. Benson, Executive Secretary, 2315 Tower Grove Blvd., St. Louis, Mo. 63110.

Communications regarding editorial matters should be addressed to Mr. J. Arthur Nelson, 3131 North 58th Street, Omaha, Nebr. 68104. For information about membership, advertising rates, and back issues, see sections under ANNOUNCEMENTS.

All copy due in editor's office fifty days before first of the month of publication.

The *Bulletin* is printed by The Livestock Press, Inc., 2830 "O" Street, Omaha, Nebraska 68107.

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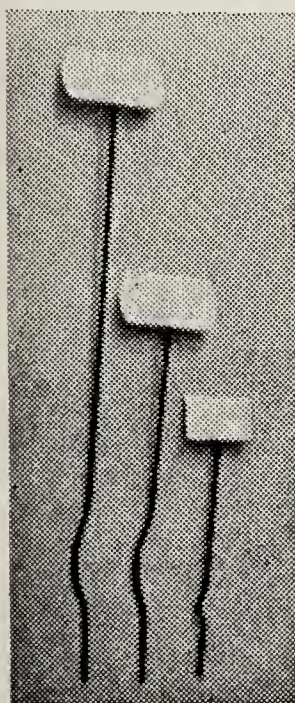
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From The President's Desk

I have just finished one of the most gratifying tasks I have performed in my official capacity as president: I sent welcoming letters to 35 new Youth Members. The real significance is not in my sending the letters, but in the fact that AIS is now actually enrolling as full-fledged members youngsters who will in a few years be the leaders in our organization. This is a movement that cannot help but grow. It offers to us all a genuine opportunity to interest our children, our grandchildren, and our neighbors' children in a wholesome, satisfying, and interesting hobby. And to the extent that we are able to do this, we lessen the likelihood of their becoming absorbed and perhaps ruined by some of the degrading "youth movements" so prevalent in our country today. In studying the list of these members, I note that Ann, Jennifer, Stuart, and Timothy Johnson reside at the same address in Minneapolis. With both parents already AIS members, this must be our current record: six members from one family!

The iris notelets will be ready for distribution by the time you read this. They are attractive and useful. We can all use a couple of boxes or more, so the demand should be heavy.

Already we are beginning to seek the perfect Christmas present for our friends and our relatives. What could be more fitting (at so low a cost) than a family AIS membership? Why not make up your list now and forward it with your check to Cliff Benson?

Many really good and constructive criticisms continue to come in. I am proud of the way AIS members are pondering on problems that are harassing—and in many cases are suggesting feasible solutions. You, too, are invited to participate!

In the July Bulletin the announcement was made that no iris had received the required minimum of 15% of the total votes cast, and that a poll was being taken of AIS Board Members to decide whether a run-off would be authorized. The result of the poll of the 14 voting members of the Board: 12 votes against a run-off, 1 vote for it, and 1 vote not cast.

The decision by the Board not to authorize a run-off (and therefore not to declare a DM winner) is based on this reasoning:

a. Our rules require the winner to receive the largest number of votes, provided this is at least 15% of those cast. This year that 15% minimum would have been 101.

b. Since we rigidly enforce our rule requiring a minimum of 65 votes for an Award of Merit, we felt that relaxation of the minimum requirements for the DYKES MEDAL would tend to lessen the prestige of that award. It would be difficult for me to believe that an iris which couldn't get at least 101 votes on the original ballot should deserve the highest award of the iris world!

I know there are some who believe we should have a DYKES MEDAL winner each year, regardless of whatever change of rules might be needed to assure a winner. There are also some who think there should be a Blue Ribbon winner in each class of an iris show, regardless of all other considerations.

The Board wants always to be responsive to the will of the majority. What is YOUR reaction to our decision not to authorize a DYKES MEDAL run-off? I would welcome a letter from every member of AIS, giving me your carefully considered views! I can't possibly answer all of those letters, but I assure you I will accurately tally the results. And I assure you further that the Board will be definitely influenced by these results in future determinations of DYKES MEDAL winners.

W. T. Bledsoe

They'll Never Believe Me

Lura B. Roach

For better than a year I had looked forward to the convention to be held in Milwaukee. The weather was uncooperative. It was cold and rainy. So it was amazing to see as many irises as we did. Had we had this type of weather in Southern California, our gardens would have been in suspended animation.

My first trip to the Boerner Botanical Garden was on Wednesday afternoon. Thought I'd much rather do this than see museums, breweries, etc.; after all we do have those in Los Angeles. The sun was shining as we left the hotel, and I had a chance to see the countryside. There are no mountains as we know them in California; but I certainly would not say the terrain is flat, either. It reminded me of an overgrown golf course with grassy bunkers and spring green fairways. As we entered the park, on the right of the drive was a huge grouping of evergreens. Our Ponderosa pine and the Eastern white pine were well represented, and I met for the first time the Austrian pine that is so useful for windbreaks and screenings. There were firs, spruces, larches, hemlocks, cedars and junipers of every description. The flowering crab apples were incomparably colorful. Across the road and to the north of the Administration Building we saw the last of the lilacs. I didn't realize the blooms came in deep purple, lilac, magenta, pink, white and blue, in both single and double forms. Related to this group was a massive tulip collection. It is said this tulip garden contains over a hundred and fifty varieties.

In the Administration Building was an oil painting of Charles B. Whinnall, the venerable Park Commission Secretary who gave forty years of his life to parks development. It was he who induced the Park Commission to buy this area of rolling hills, wooded lands, swamps and lakes, so they might be preserved for coming generations. In 1927, Al Boerner became Milwaukee County's landscape architect. Together, this young man, who was formally schooled, and the older man, whose ideas liked to soar, planned for the preservation of the natural areas within the park and also for a formal botanical garden for educational and inspirational purposes. The Park and the Root River Parkway now total two thousand six hundred and fifty-five acres.

It was in the Administration Building that we saw the art and educational exhibits. The woodcarved plaques of Robert Reinhardt, the hooked rugs, the oil and watercolor paintings, the handmade quilts were all outstanding, especially as they depicted our favorite flower. The specialty iris societies should be commended for their displays. There is no excuse for anyone who attended this convention not to know the whys and wherefores of each section. These displays not only gave pertinent facts and pictures but also complete cultural information. On the strength of what I learned, I can think of no reason why I shouldn't grow a few Japanese irises in my own garden.

The real reason for coming was to see the irises, and there were twenty-one beds in this planting. As we dashed out there, the skies opened and wept. The wind blew a gale and many of the stalks that would have shortly supplied a wealth of bloom were snapped off at ground level. It seemed to me they were planted much more deeply than we plant on the coast. The reason given, the freezing and thawing that occurs during winter months heaves less deeply planted stock right out of the ground. Be that as it may, I do believe these deeply planted clones are more susceptible to rot. Then too, should this occur, the clearing away of soil to allow for the sun's healing rays, leaves a depression that easily fills and retains water during the rainy season, thus compounding the misery.

Before we left the garden to return to the hotel to "pretty-up" for "OLD MILWAUKEE NIGHT", I did notice that AMETHYST ACCENT (Kidd '68), was performing beautifully. The very large pale orchid standards, veined a deeper amethyst, are domed. Falls that are smaller recurve in aril style, and are bamboo based with veins of deep rose. About the wide mustard beard is a pattern stippled in brown. There is a well-defined rosy brown signal and the huge buff stylearms protrude well beyond the base of the globular standards. The twenty-five inch stalk has one and sometimes two branches with multiple bud sockets. Unlike most arilbreds, this one has excellent foliage. Vigor and increase were outstanding.

Thursday morning, we were up bright and early, and after bussing to the Royal Johnson garden, we returned to the Boerner Garden. It is interesting to note that much of the damage of the previous day had been cleaned up. During World War II, the gardens were unable to acquire the necessary male help to maintain them. In desperation, it was suggested that women might be used for the lighter tasks to replace the boys who were in service. And so, a crew of three women were hired just to groom the garden. This crew was so very successful that following the war, they were never replaced. In fact, one of the original crew is still employed today. A beautiful job they do as they go about with their little pushcarts, grooming and weeding to make each planting the perfect picture.

In the same bed with AMETHYST ACCENT was ESTHER THE QUEEN (Hunt '68). This had exceptional branching for an arilbred, and it was considerably taller (thirty-six inches) than either parent as we see them in Southern California. There were two branches plus the terminal, and other than the terminal all bud sockets were single. The lavender-blue standards were smooth except for texture veining and were globular in form. The large conspicuous styles were beige, with some striations of turquoise. The smooth, clear flaring falls recurved slightly. Their base

color was beige overlaid with a rosy blush. The diffuse beard was a very dark brown and this same color continued in a pattern-like signal. Substance was heavy and the flowers held very well.

Close by was LAKE MATTAWA (Gadd '67). This was more on the Mohr type. It was simply huge and had terrific vigor and increase. The thirty-two inch stalk had two branches plus a spur and the terminal. This was a blend of blue and turquoise and from a distance gave a very blue effect. Standards were rounded but did not touch. Styles were extra large. The flaring falls recurved slightly and sported a wide fuzzy dark blue beard. Substance was good.

Then there was a seedling that really took my fancy. Imagine my surprise to find that Harry Tate of Sunnymead, Calif., had done this one. Upon returning home I noticed I had been following this cross, but never before had I seen 65-4K. The vigor and increase were outstanding and it had so many of the aril traits. There is a single branch on the twenty inch stalk and only the terminal bud socket is multiple. However, I had an opportunity to again view this clone on the following Monday and the flowers were still holding beautifully. The domed rosy standards are veined in rosy violet. The flaring yet recurved falls were stippled with old rose. The hafts are clean and wide. The warm brown beard was diffuse and just beneath it was a well-defined dark signal. Texture is silky and the substance heavy.

There was a tall bearded that drew me across the garden, COPPER CRAFT (C. & K. Smith). There were three branches plus a spur held rather close to the thirty inch stalk. The flower was just unfolding with wide domed standards of golden-copper that were ruffled though slightly open. At their margin the color seemed to deepen to a reddish brown. The ruffled flaring falls were of the same color tones and at their tips was a bit of lace. The wide bright orange beard lit up the whole flower and its texture simply sparkled. At this point I had to run, for our bus was leaving and I've never been known to miss a meal.

After lunch we returned to the garden for the judging session. I played hookey, with my RVP's knowledge. Just had to see more irises and of course I returned to COPPER CRAFT. Considering the coolness of the weather, I was shocked to find it was no longer bright. In fact, it was badly burned and curling up at the edges.

For some years we haven't grown many of the Siberians, but now that I know that they do well as companion plants in the azalia bed, I must have more of them and not just CAEZERS BROTHER, beautiful as it may be. COOL SPRING (W. M. Kellogg) has very wide parts with very little pattern. Its standards are a shade lighter than the light blue falls. ILLINI ENCORE (Varner '68) was very floriferous and made a lovely clump. Standards were light violet tinted white. Falls were white overlaid with an etching of light violet. This had lovely form. There just was no pinching or tucking. Though the tall stalks had but one branch . . . who cares when there are so many of them.

In this same area were the miniature tall bearded. As a rule they don't do anything for me, as so many of them have such strappy form, and besides they don't bloom well in Southern California. DAINTY DANCER (A. Brown) was a cute little thing that had three to four branches on a

twenty-eight inch stalk. Standards are a blend of orange white and yellow. Falls are violet with a yellow edge, and the beard is bright orange. I just wish it had wider parts.

LATIN LOVER (Geo. Shoop '69) is a much improved **WINE and ROSES**. Standards of lavender pink are ruffled and closed. The ruffled flaring falls are a deep burgundy rose with the margin rim, and the reverse side the same lavender pink as the standards. There is a very inconspicuous pattern about the tangerine beard. There were but two branches plus the terminal on a stalk that measured twenty-one inches. This same cultivar as seedling 64-16 was much taller and had better branching in Northern California last year. There was evidence that this plant had been in trouble and the fact that it bloomed at all speaks well for its vigor.

PUNCHLINE (Plough '68) was not the exquisite metallic creation we saw in Berkeley. In fact, the colors were quite dull. Form, height and description follows the catalogue. In my own garden it had good height, branching and form . . . but again the color was dull and washed out. Wonder what they did to it in Berkeley.

TAMBOURINE (Babson '69) was just as lovely as we saw it last year. The exceptionally large flowers are borne on thirty-four inch stalks. There are three candelabra-like branches plus the terminal and the bud sockets are multiple and well timed. The glowing golden yellow standards are very ruffled and dome nicely. The flaring fluted falls are so wide they overlap at the hafts and their color is a blend of mulberry, violet, brown and gold, with just a flash of blue just below the fuzzy yellow beard. This was doing very well. Vigor was excellent. There were four nice increases plus the bloom stalk.

If you are one of those who like "biggies" try **MAIDEN VOYAGE** of Willard Barrere. This is an orchid blend and the size of the flower is simply huge; in fact, much too large for the height of the stalk. **INSURPRISE, SURPRISE** (Judy '68) is too much like **GAY TRACERY** that Jim Gibson introduced in '65. Without the labels I doubt if they could be told apart. **BLACK ROSE** (Vallette '63), was holding its own with the newer introductions. It put up an outstanding stalk with three branches plus the terminal on a thirty-six inch stalk. This crimson black self has closed standards and flaring falls with only slight reticulations at the hafts. Bud sockets were multiple and well timed. Texture is satiny and very rich. The flowers hold well even in hot weather.

FIREBALL (Schreiner '67) made an impressive clump. This tall glowing red is borne on thirty-six inch stalks with three branches plus the terminal. Standards are closed and falls widely flaring. There is little evidence of a haft pattern which mars so many of the reds. Substance is excellent and vigor and increase outstanding.

ARCTIC FANTASY (M. Olson). There were two candelabra type branches plus the terminal on this coral bearded white. Bud sockets were multiple. However, those in the terminal were so far advanced it threw the flower off center. The large, wide, heavily ruffled standards were erect with their tips touching, while the lateral edges flared backward like reverse wings, giving the whole a domed silhouette. The waxy white falls were ruffled and fluted. Their width was almost as great as their length,

and they flared nicely. Hafts appear to be clean, though there is a slight inconspicuous pattern which is almost hidden. The wide fuzzy coral beard was so pretty I wish it could have been a bit longer. Substance was tough and heavy and the flower held up well.

FLAME AND SAND (Carlson '68) was doing its stuff and getting much attention. Vigor and increase were outstanding in my garden. It put up two perfect bloomstalks with two and three branches plus the terminal and made six good sized increases. All of its parts have good width. The ruffled flaring falls are a rosy beige-tan, and just below the startling nasturtium-red beard is a lighter area. There is a blush of golden tan at the hafts accompanied by a very slight inconspicuous pattern. The large ruffled standards are the same color tone and are domed with even a bit of lace at the tips. Texture is that of taffeta with just lots of sparkle. Substance is heavy and the individual flowers hold well for four days.

TRALEE (Corlew '69) was not the extremely ruffled and fluted flower we saw at Wanut Creek last year. I'm quite sure this was a one-year clump and possibly it takes a second year to get the heavy ruffling and lace. It is an orchid-pink with good vigor and acceptable increase. There were two candelabra type branches plus a spur and the terminal on a thirty-two inch stalk. All bud sockets were multiple and well timed. It seemed to me that the flower was considerably larger than it was last year. The domed standards of orchid-pink overlap while the almost horizontal falls are apricot with an overlay of lavender. At the hafts the apricot blush is intensified, and it has a wide bushy strawberry beard. The waxy texture is star dusted and the flowers hold well for days.

Seems that the reds really got to me this year. **JEWEL TONE** (Schreiner '66) was a glowing ruby-red self, including the beard. Possibly due to the weather conditions, the standards in Milwaukee seemed a little weak and the thirty inch stalk was high branched. In California the wide ruffled standards are in an open position but they are firmly held, and I can find no evidence, in my previous notes, of high branching. **ROUND DANCE** of Jesse Wills is scheduled for introduction in '70. Its three branches, while not candelabra, were held clear of the thirty-nine inch stalk. The bud sockets were single except for the terminal. The domed standards of a greyed-cherry overlap. The flaring and slightly ruffled velvet falls were deeper in color and more brilliant. Hafts were clean with no evidence of pattern. The wide fuzzy beard was burnt orange. The large floriferous clump was quite spectacular, showing flowers of varying ages that were holding nicely.

Then in the amoena-neglecta class was **COASTAL WATERS** (Plough '68). The ruffled and closed standards are flax blue and have a nice glitter. The flaring ruffled falls are the same color except that there is a greater saturation of color at the lower edges. The color lightens about the white beard. The thirty-six inch stalk had exceptional candelabra branching and the bud sockets were all multiple. **FOGGY DEW** (Keppel '69) was seen in the garden as 64-37Q. If there is such a thing as an amoena-plicata class, this iris certainly fits into it. This one lost its bloom stalk in the gale so I'll just have to describe it as it grows in my garden. A single rhizome planted last summer put up two bloomstalks and made two nice increases. The foliage was a nice dark green and very vigorous. The thirty-six inch

stalk had three modified candelabra type branches plus the terminal and all bud sockets were multiple and well timed. The large flower is well balanced with very ruffled erect pale lavender standards that touch. The broad flaring ruffled falls have a white base and are finely stippled with light violet in a plicata pattern. At the hafts this pattern becomes darker. The beard is an inconspicuous white. Texture is waxy and the substance is heavy and tough. Individual flowers lasted well for several days.

LIGHT FANTASTIC (O. Brown '68) was under number 4-13B1. This is a cream colored blend that has FANTASTIC ruffling. It is a blend, for there is a hint of blue at the base of the beautifully formed standards and the broad extremely ruffled and fluted flaring falls have definite green tints. Beard is pale yellow. The thirty-eight inch stalk has three well-spaced branches and all bud sockets were multiple. GOLDEN SENSATION (Sexton '67) was a golden yellow self that had great color saturation. The clear bright green-gold standards are domed and ruffled. The flaring ruffled falls have a white blaze beneath the orange beard. Hafts are smooth and all parts are wide with excellent substance. The thirty-three inch stalk had three branches plus the terminal. All bud sockets are multiple and well timed. As I said before, the weather was cool and I noticed no evidence of fading or bleaching. NEW MOON (Sexton '68) is a child of my all time favorite MOON RIVER. From what I had heard on the grape vine, I expected it to be exceedingly tall and majestic, like its mother. Of course, all irises don't do as well in some locations as they do in others and, as I have only seen this one in Milwaukee, I'll just have to describe it as it grew in the Boerner Garden. There were two well-spaced candelabra branches plus a spur and the terminal on a thirty inch stalk. This large golden yellow self has great width, excellent balance and proportion. All bud sockets are multiple and well timed. The ruffled standards are lace tipped and have an exceptionally strong midrib that holds them erect yet touching. The ruffled and laced falls have a lovely lilt and sport a wide bright orange-yellow beard. At the hafts the color saturation deepens to a blush. The flower seems waxy with lots of sparkle. Substance is very good and the flower holds well. If it had the height and branching of its mother, it would definitely be a candidate for the Dykes some day.

It isn't very often we see conical standards but those of BEAUTY TIP (Plough '69) swirl about themselves nicely. The height of the stalk was only twenty-six inches and it carried two modified candelabra branches plus a spur and the terminal. All bud sockets were single except the terminal. The flaring falls recurved slightly. The flower opens as a pale lavender self but soon fades to white. Hafts are clean and the outstanding feature is the wide coral beard. The waxy texture sparkles. Substance is good. We noticed that the hybridizer listed its height at thirty-four inches and we hope it will be that tall when we grow it.

Then there was INTOXICATION (Schirmer). What a name to give a beautiful clear pink self. This too was on the short side for a tall bearded. The twenty-six inch stalk had two rather high branches. At the time I viewed it only the terminal was open and I'm not sure whether, when the others open, there would be bunching. Luckily the bud sockets are single. The wide ruffled standards of rosy pink domed and tip tips touched. The

falls were a lighter color and were ruffled, laced and flared jauntily. Hafts were broad and clean and the wide beard was coral. The general impression was that of smoothness. I only saw it close up on Thursday, but on subsequent days I could see it across the garden and it appeared to be holding.

STRANGE MAGIC (Plough '69) is a blue blend that conjures mixed emotions. I looked at it several times before I decided to take notes. Even now I'm not sure that I like it. The plant was vigorous and making good increase. There were two branches plus a spur and the terminal on a twenty-nine inch stalk. Flowers were not overly large, but then with this short stalk, one would not expect them to be. The pale French blue standards were conical in form and at their base and extending up the midrib was a wash or overlay of blue-violet that became less saturated as it reached the upper half of the petals. The horizontal falls of French blue recurved slightly at their tips, and beneath the dark blue beard, the blue-violet tone is repeated in a blaze. At the hafts the color is intensified to a blush. Texture seemed silky and substance a little thin.

Sometimes I feel that Lady Luck has a great deal to do with the popularity of an iris. Dave Niswonger's 33-63 (**TYCOON'S GOLD**) put up an exceptional stalk that was not damaged by the freakish Denver weather and the result was sixty-one votes for an HC. **MINNESOTA GLITTERS** put up an outstanding stalk at the Berkeley convention and it received fifty-two votes for an HM. But there are times that Lady Luck turns her back on you; then **WATCH OUT. MINNESOTA GLITTERS** (Bakke-Messer '67) seemed to have been in trouble in the Boerner Garden. The plant did not seem to be very vigorous and increase was scant. The twenty-six inch stalk had two branches plus the terminal with a total bud count of four. Possibly this is not typical. The balance and form of the flower were very good. The large apricot standards were nicely ruffled and domed. The flaring, slightly ruffled apricot falls recurved. Though the color was smooth there seemed to be a mauve overlay. There was a blush of yellow at the wide hafts. The wide fuzzy orange beard was exceptionally bright. Still there wasn't that glitter that made it so outstanding at Berkeley.

The border beardededs have always intrigued me, especially if they are small. So I was, to say the least, shocked to see **JUNIOR PROM** (Ghio '68) growing on a thirty-eight inch stalk having three branches plus a spur and the terminal. At home in my garden it is a darling little light blue self that would fit the miniature tall bearded class if its stem were just a little more flexuous and wiry. This voluptuous flower had wide ruffled standards that domed with a bit of lace at the overlapping tips. The slightly ruffled falls had a waxy texture and flared jauntily. At the hafts the clean color was more intense. The white beard was just frosting on an all together lovely flower that had vigor, increase and good heavy substance.

NIGHT TRAIN (Varner '66) was another BB that seemed a little too tall. The smaller very dark purple flowers were carried on a well-branched thirty-six inch stem. The ruffled and domed standards had an exceptionally strong mid-rib. A very slight recurve at the tip of the ruffled flaring falls added to its beauty. Substance was excellent and, even though this particular clump was too tall, in the hands of the flower arrangers it will surely go places.

Magenta toned iris are quite rare. L.P.65-10C of Les Peterson did not seem quite tall enough to be classed as a tall bearded. The plant was vigorous and making good increase. There were three branches, a spur and the terminal and all bud sockets were multiple. The large exceptionally wide petaled flower was quite blocky. The blended standards of magenta-plum were erect and ruffled. Falls flared and had a saucy recurved flip and were magenta in color, with a brownish blush at the hafts. About the orange-yellow beard was a slight peppering. Texture was like velvet and substance seemed good.

A very vigorous clump of M. Sheaff's 63-44H was making excellent increase. It is a gorgeous full yellow self with ruffles and a bit of lace at the tips of the wide domed standards and flaring falls. Frequently lace diminishes color saturation. However, in this flower the color deepens as it reaches the margin of the petals; especially is this true of the broad hafts. The conspicuous beard is yellow. There are two well-spaced branches, a spur and the terminal. All bud sockets are multiple. The whole flower shimmers. Substance is heavy and the flower appears to hold well.

W 988B of Schreiners was a lovely amoena that had three well-spaced branches, a spur and the terminal on a strong stalk of good height. The bud sockets were well timed and multiple. The waxy slightly ruffled and domed standards of tinted white have a strong midrib. They really sparkle. The rosy violet falls of flaring velvet have a fine pencil line border of a lighter tone. At the hafts there is a pattern but it is not objectionable. Vigor, increase and substance were all excellent.

At the beginning I said you would never believe me . . . and I must admit that many of these notes were taken on Monday following the convention when Clarence Protzmann and his charming wife took us again for one last look. Without the shutterbugs it was so much easier to take notes and there had been sunshine on Sunday, which brought out so many more flowers. Before I close I want to tell about two more seedlings, even though they were not in the Boerner Garden.

In Mr. Blodgett's garden was a lovely orchid-pink that made me flip. 69-19 had show stalk branching on a stalk thirty-two inches in height. Buds were multiple and well timed. The flower was not overly large but it was in nice proportion to the height. The wide ruffled standards were held erect and there was a bit of lace at their tips. The flaring ruffled falls had some interesting sap-green texture veins which I thought added interest. The broad hafts were smooth and clean about the coral beard. Increase and vigor were both very good and I believe this one when introduced will make a fine addition to the class. Some members of Region 15 have heard me say, "Unless you personally are willing to put up hard cash for a seedling when introduced, introduction should not be encouraged." It is amazing how few are commended when this is your guideline.

Then there was a red-brown that was interesting in Mr. Protzmann's garden. 66-50 had two well-spaced branches, a spur and terminal on a twenty-eight inch stalk. The lightly ruffled and domed standards were red with a slight brownish cast and had the texture and sparkle of taffeta. The wide flaring velvet falls were almost round in shape and nicely ruffled. Their color was a brownish red with a sooty overlay on the center. At the edges of the petals the color lightened to form a border. Hafts were clean

and smooth and carried the wide brown beard nicely. This undoubtedly was a two-year clump producing multiple bloom stalks. It was a fine garden subject.

These tall bearded dark irises that are bred in the east and middle west worry me a little. Too often we have had them in Southern California on stalks of twelve inches and less, and that is not acceptable. Usually we say this is due to the fact that we cannot provide winter cold. But having Wisconsin's cold and still not getting height of more than twenty-eight inches . . . I wonder if this should not be classed as a border.

The season is over and there are many chores to be finished before we can begin to think of next spring. But how, Oh! how can we wait that long.

VIEWES AT MILWAUKEE
(Photos by Kuesel)



Alfred G. Boerner Botanical Gardens.



JUNIOR PROM (Ghio '68)



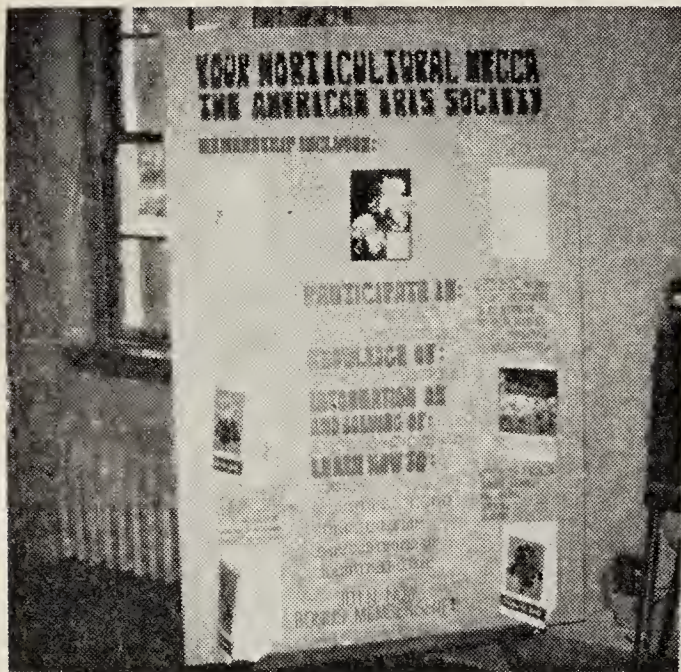
GRAND BAROQUE
(Zurbrigg '69)



Perry Parrish, Bee Warburton,
Alta Brown and Fred Stephenson.

Part of Education and Art Exhibit at Milwaukee.

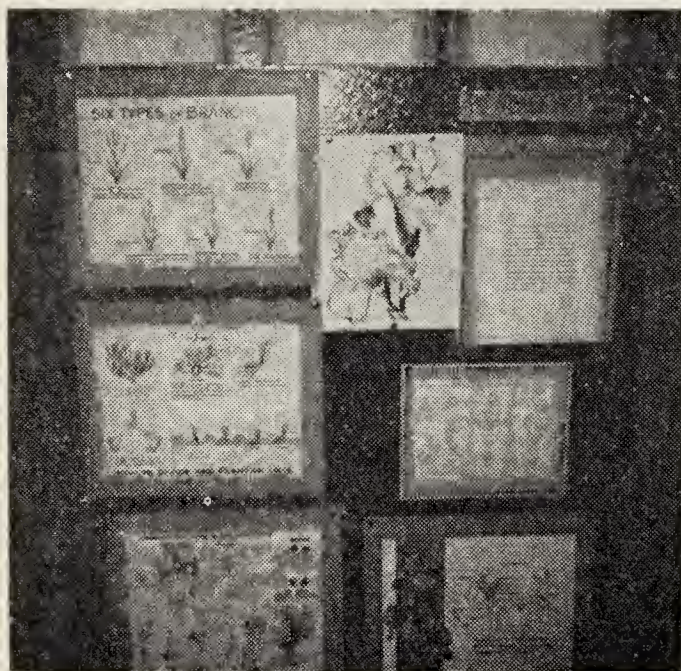
(All Photos by George Ney)



Show Ribbons and Certificates



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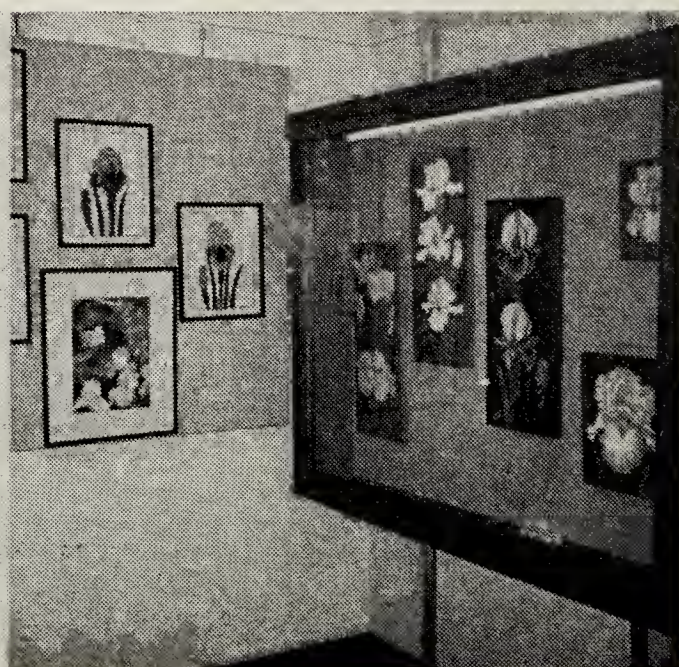
About Irises



Iris Mosaics and Paintings



Louisiana Iris Water Colors



Reinhardt Wood Carvings and Drawings

The Rainbow Trail In Oregon --- 1969

as taken by Elsie Mae Nicholson

Highway Beautification. It began with masses of irises in bloom along Interstate Hwy. 5 as we left the mountainous border between California and Oregon. Median strip plantings at frequent intervals, huge color delineations at the interchanges, and large groupings interspersed along the sides alternating with small redwood groves—this all the way to Portland! What an all-out sponsorship of our *Favorite Flower* by the Oregon Hwy. Dept. (They've successfully enlisted "senior citizen" help for hand-weeding, for I detected only a few untidied plantings, well off to the sides.) Colors were grouped for best results—only occasionally was an area planted polka-dot fashion with a few rhizomes of each hue. So be sure to plant dozens of rhizomes of one color, gently "drifted" into the next differently colored group, if you are creating large landscape effects. These iris masses should grow together (they left generous gaps in the new plantings) in a stunning effect for you irisarians at the '72 National.

Three viewing days (May 23 thru 25) in Oregon refreshed my eyes with cloud flecked blue, blue skies and rolling green land garnished with firs that formed a wonderful staging for the rainbow of Iris. There the pigments are able to glow in all their fully saturated beauty, instead of having to struggle against the "bleaching process" provided by our hot California sun. (Of course, the latter does separate the thick substantiated from the thin, quite decisively.)

GAULTER PORTRAIT GALLERY. First close-up views of iris blooms, appropriately for me, were those of a California hybridizer, as I watched Mr. Rholin Cooley supervising the photographing of a bevy of Larry Gaulter's seedlings, which will grace future catalog pages for our enjoyment. A winning beauty was a rosy lilac (66-85) with a Spanish tile red beard, flounced skirts and "those" shoulders (a Gaulter trademark). A 1970 debut is scheduled for this gal, whom Larry is trying to name Meg (yes, another grandchild). Another rosy violet (66-68) with a blue blaze on the freshly opened broad falls, an orange-yellow beard, mahogany shoulders, and very wide branching, is for '70 for sure, possibly as PICARDY. My favorite was a pink lovely (from Laurie x Orchid Brocade) 67-251, with wide squared shoulders. Larry says he's fond of her too. Lots of grape colored seedlings in the selected rows which could provide future "beauty wine" for our gardens. I especially remember a bright mulberry (67-32), this one bare shouldered, with a violet haze around the beard. One of these wine beauties, GRAPE FESTIVAL ('69) is ready for our iris table right now. I found this grape blend with enormous blossoms widely spaced (three at a time) on tall husky stalks. The shoulders on this one are a subdued bronze, and they are brightened with whitish beards. "Good enough to eat or drink," and definitely good enough to grow.

Cataloging The Cooley Collection. At their display garden found that OUT YONDER (Wickersham '69), really has those intense blue falls the cover ink produced—really! The flower is well balanced, though only medium sized, with flaring falls an almost unbelievable royal blue contrast

to the blue-flushed white standards. I liked the pale greenish yellow coloring of CITRINE ('69) and its texture veining, but was not captivated by the slightly open standards, which are a little shallow in depth for the length of the falls. SMART BARBARA ('69) was doing Jim Gibson proud with her size, flounces, and ginger-rose freckles. TOP BILLING (J. Nelson '69) has a thick opaqueness to its milk glass whiteness, slashed with bright red beards; the standards touch, the stalks are sturdy with wide branching, but on the second day's viewing, some of the falls seemed slightly twisted (perhaps a difficulty connected with the opening of thick, thick petals). I found Will's NATCHEZ TRACE ('69) brighter than its catalog picture, but still with somberness from its rose-red and red-brown coloring that takes getting used to.

SEEDLING SEDUCTIONS At Schreiners. Planted in color blocks, and with Gus Schreiner as guide, it was a judge's joy indeed to inspect them. Loved meeting: DARK CHOCOLATE ('70), from a Luhn red x Gypsy Jewels, a complete self, a smoky overcast to the red-brown sheen; a Martel like blend (a sib of Martel x Royal Tapestry) with a big, thick yellow beard; a red-brown edged in bright yellow (B537-A), the whole underside of the petal this bright yellow so that the buds intrigue with a spiral pattern of red-brown and yellow. A henna red (B 345-2) stood out like a signal light from its companions in the red rows. It seemed the reddest yet from the brown side. Some Mt Fuji type flowers possessed almost pure turquoise falls. No camera will ever capture this color, but my memory has. In the **dark** rows, there really was a black, black flower with no violet discernable to the eye (but it had long strappy form).

There were well-formed flowers in black and gray (from contrasty Marvalon x Black Swan), with a surprising lifeness, not at all depressing. Their formal dress was drawing many favorable comments. (But, of course, the very best form would be in a flower that had more beige in the standards). They were all enriched with gold beards. A partial row of "kooks" improved upon acquaintance—clear yellow standards, white falls with widely brushed borders of red-violet.

Charmed by the Palomino coloring of a thickly substanced, broad, slightly ruffled and laced flower (B700-AA), with texture veining and a bright orange-tangerine beard. This seedling from May Delight x Christmas Time had two branches and terminal and took three days to fully open (such thick substance). With its peachy pink laced standards and a wide apricot border to the pinkish white falls, it remains in my memory (and on a color transparency) as quite the most beautiful single flower seen on the entire visit.

But THE excitement was with the Dreamtime selected seedlings. From beige, ashes of roses, through delicate lavenders and pink-tinted-white to deep orchid-pinks, these broad petaled elegant beauties, often lavishly laced, always with superb substance, strong stalks, usually with wide spaced blossoms, presented such a high excellence that Gus can select any of at least 20 possibilities, for introduction and we'll buy. I recorded B791-2 as having the best branched stalk. What a plutocrat of a parent that Dreamtime (this judge's "judges' choice") iris proved to be!

Strolling Down Schreiner's Walk. A golden bronze torch beckons along the path-thick substanced ETERNAL FLAME ('67), an iris of Olympian

proportions and qualities. I was thrilled again by that ROYAL TOUCH ('67) and fascinated by dark MATINATA (more handsome in his home climate than in mine). I gave a salute to WARLORD ('68), (but he is not such a battle winner in California). I found MOLTEN EMBERS ('69) big and lusty but somehow not as richly satisfying in color as I had expected. I enjoyed the smooth (good enough to eat) surfaced color of GLAZED ORANGE ('69), but I've seen broader falls in this color class. LIME FIZZ ('69), clear in color, had a lacy grace, but the flower lacked depth of standards for best proportion to the falls. The introduction that stole points from its higher priced companions was REGALAIRE, a true deep blue self of fine proportions and regal stance, an updated Allegiance. But the beauty who stole my heart was MARGARITA ('68), gracefully gowned in white satin and cool purple velvet with pearl jewelry of white beads. Generous hearted with her floral offerings, What a gal—her photograph only hints of her outstanding charm.

TOPICALS AT TOMPKINS. The magnet there, of course, OVATION ('69), a brilliant pink spotlight from a distance. Upon "first row seat" inspection one observes that a strawberry wash is splashed over a lighter pink background. This overlay, like a sheer gown over a taffeta slip, varies in its coverage from flower to flower. However, this double-gowned effect seems to be a way to the pinkest yet and this star was being contracted for by many hybridizers, each of whom probably hopes to stabilize that uneven color wash. A softened tangerine beard helps the overall pink impact and strong veining and some haft lines do not age her too much. I'm sure she will be asked to put on a show in every irisarian's garden some day, when her fee comes down.

I liked the different (more yellow in it) deep orange coloring of GOLDEN MANDARIN ('69). But Chet has added a definitely new color band with the soft pumpkin smoothie, 63-5A ('70), a mandarin yellow. I found the most perfectly formed seedling flower in 64-96C ('70), a deep blue self.

Chet was "one up" in reds that week, edged just a bit ahead of Schreiners with a big red seedling (64-80), a complete garnet red self to my eye, with absolutely smooth hafts, domed standards, arching falls—hear that it got together with that scarlet approach at Schreiners. Might lead to a real change in the red band.

I smiled at CAMELOT ROSE, that orchid and burgandy bicolor beauty, who should be among the *Top Ten* for a long time. Loved her in my garden clump, so what an added sight delight in rows and rows of her. I was delighted with a surprise color concoction (somehow missed in previous shopping), CANDY COUNTER ('67), with its peachy amber borders on pink and white blooms, golden flecked. A recipe to satisfy an irisarian's "sweet tooth." (I note that Apple Valley is an ancestor—I sure succumb to A.A. characteristics). STAR TREK ('68) was a gilt sensation for me, though the falls are a little longish. Heavily substantiated, fluted flower that revealed the run with its shine. This judge's choice of Chet's recent introductions is TINSEL TOWN ('67) and I feasted on two rows of this tall classic in white and gold.

DEFOREST IS GREEN. I found BAYBERRY CANDLE ('69) glowing at Mrs. DeForest's in self mellow green (though this hue was yellowed in California, in a guest planting). But under the moisture laden Canby sky,

the Goddess Iris had definitely added a green band to her rainbow crown. I enjoyed a conversation with Mrs. DeForest's TALKING POINT ('69), (there's those Apple Valley genes again), a big lavender blend, tangerine bearded. A man's iris (judging from my husband's response) is her big broad orchid (66-62), with enormous thumb (more likely, hand) prints on her shoulders, a Claudia Rene type out of entirely different breeding (Floating Moon, Christmas Angel, Alice Christy). Also attracted to her BRIGHT 'N FAIR ('66), peachy stands, and bright yellow falls, a little long. One of my favorites continues to be the lavender blue BLUEBELL LANE ('66), a worthy child of High Above.

A LEGACY OF CRAIG CREATIONS. Fran Craig walked with us among the blooms from Tom's hands and love. We responded, as always, to those superbly branched amoenas and neglectas and deep violets. FRENCH CROWN ('66), was especially elegant in blue and violet. Confirmed again Joe Ghio's contention that COOLHEAD (Tim's '65) is an excellent blue-violet amoena that was too long overlooked. A-1 branching, superb form. Charmed by a smaller pansy falled amoena BORDER BEAUTY, with a white spotlight around the beard. Tom's artist eye surely loved vivid color impact and he managed a wallop with mustard stands and green splashed violet falls in ORO-GUINDA ('66), and I have noticed that this exotic coloring stays vivid in the hot Keppel garden. Noted another bicolor, VERY NEW, with yellow standards and rosy falls. Also, a fine neglecta with similar coloring to Mahalo-bluish standards and rosy violet falls.

THE GATHERING Of The Clan. At Schreiners on Sunday afternoon, May 25, bloom was at peak and the word had spread, with irisarians arriving from all points of the compass. Among the visitors Joe Gatty, Ethel and George Johnson, Keith Keppel, us (the Nelson Nicholsons), Vernon Wood from California (the Larry Gaulters and Stewart Barbers there for days before); Foster Allen and Joe Hoage from Washington, Bennett Jones and George Shoop from Portland. Note-taking, camera focusing, evaluating remarks, Bob and Connie and Gus beaming all over the place, as well they might as custodians of this "dreamland", highlighted by those Dream-time seedlings.

Took memory and actual pictures of the light yellow standards, self-colored borders on almostsquare white falls of A1316-2. This bloom proportion was among the best with its fall petals almost the same size as the standards. (We do seem to have too many longish falled iris varieties.) This is a commercially quiet lemon-cream color combination, but so utterly lovely that each judge succumbed, and I think the Schreiners will, too. Bennett Jones was a special admirer of this seedling also; we kept meeting in front of its calm perfectness. A chance here to note how much I admire Bennett's border iris introductions for the standard they set in smaller proportions. I note that in the latest awards list, a TB proportioned iris won an AM for border bearded, and two other short talls won H.M.'s for borders. (Tsk! Tsk! you judges.) Bennett's orange TB, BRIGHT BUTTERFLY ('67), is a fine performer in our area.

Was glad to hear from George Shoop that he was pleased with LATIN LOVER'S behavior this summer in its first season of introduction. He's measured 8½" blooms in some plantings. This orchid-pink and wine-red

costumed lover boy can visit my garden anytime. George said he was excited about a pink amoena seedling from L.L., as well as a bicolor child with salmon pink standards and creamy horizontal falls.

Couldn't budget time for wandering into Washington this iris season (will travel the rainbow arch further northward another year). Judges returning from Gordon Plough's exclaimed over the deep color contrast, yellow and garnet, and good form of MARIACHI ('69). But the memory impact was evidently from a Wintry Night seedling, WINNER'S CIRCLE ('70?), with a white spotlight on each deep blue-violet fall. Reporters from Walla Walla lauded Opal Brown's SKYVIEW ('69), superb blue child of Winter Olympics and Galilee. Her SEASIDE ('67) has been a top performer and judge's choice for me, so I'll welcome her sister anytime. And we should all trip the LIGHT FANTASTIC ('68) in our gardens as soon as possible. I was happy to read that Alta Brown won 1st Premio at Florence for Intermediates with her ARCTIC FANCY ('65), long a violet and white favorite of mine, in either its plicata form (which it has in my garden some seasons) or in fancy patterned guise.

The sun is setting on Salem as we head down that iris wreathed highway toward California and my mind's eye sees the rainbow as an iris halo over this fabulous hybridizing area. May this halo surround many of you there in '72, and may the Rainbow Goddess crown all our gardens meanwhile with her color gems.

Addenda: We do want to credit Ben Hager with DECOLLETAGE and T2126A, now registered as TUCSON (see page 23 July 1969 *Bulletin*).

*Iris*es in 1969

Ralph and Helen Lewis

BLUE

BEATRICE JOYNT (Zurbrigg '65). Truly outstanding light medium blue; color very true; form superb with tight standards and flaring falls, both beautifully ruffled. Stalks tall, well branched and strong. Very floriferous. Has been an excellent parent for us. MUSIC MAKER (Waters '63). All time great sky blue. Color exceptionally pure, with no trace of white at tip of the beard. Form and substance above criticism. Our opinion of this iris is indicated by the fact that it won our enthusiastic vote for the Dykes Medal this year. POPOSHA (Woodside '68). Very exciting new one with its Indian name and its big, medium blue flowers, heavily substanted and perfectly formed, and showing a yellow tip on its white beard. Stalks tall, strong and beautifully branched, and performance on a first year plant was amazing. Looks like an all time great to us. NORTHERN AIRE (Goodrick '65). Pale blue-violet with golden beard. Ruffled standards not too tightly closed but substance good and falls flare nicely. COASTAL WATERS (Plough '68). Very charming medium blue with tight, almost conical standards and round flaring falls showing a blue-white beard. Beautifully ruffled; fine form, substance and branching. WILD RIVER (Schreiner '68). Beautiful new medium blue flower. Form stylish, ruffled and with lots of flare, and substance and branching about all that could be desired. We surely want this one. CAR-

OLINA SKY (Powell '65). Big, sturdy, superbly formed, deep medium blue; one of the bluest we know. Superb performer, tall and well branched; fine iris in every respect. DIPLOMAT (Tompkins '66). Very stylish, trim deep blue-violet that takes adverse weather conditions in its stride. DRAKES CHANNEL (Knocke '67). Large violet-blue with strong, tight standards and semiflaring falls; graceful, sturdily substandard, and fine in every respect. Another blue that we want very much. TIDE SONG (C & K Smith '67). Dark iris that is blue in tone rather than violet. Not quite so deep in tone as Allegiance, but definite break in the quest for really blue dark blues. This would seem a definite must-have for any breeder working in this color. GREAT RIVER (Cramer '68). One of most exciting irises we saw this year. Superb both in our garden and at its Illinois home. It had big, beautifully formed, medium light blue flowers with no trace of violet. Form superb with tightly held domed standards and broad semiflaring falls, both beautifully waved. Another iris that we just cannot praise too highly.

WHITE

THRUWAY (Knocke '67). Arresting new white with grand form and substance and lots of style. Stalks tall and well branched. Floriferous and takes rain and bad weather surprisingly well for an iris of its size. JUNIOR PROM (Ghio '68). Perfectly charming new blue-white border iris. Flowers nicely formed, very heavily laced, and strongly substandard; branching excellent. CELESTE (Theurer '67). (Celestial Swan X Allegiance) Flowers are beautiful, of warm white color, and with all the quality one would expect from such an illustrious parentage. FIRST SNOW (Sexton '66). This spring gave us our first chance to see this superb, heavily ruffled pure white. Seems to us to have about every desirable quality. Definitely on our want list. HEAVENLY GUEST (Schmelzer '66). Grand. Ruffled flowers have closed globular standards and wide, round flaring falls with self beard. Substance sturdy and plants very floriferous. IMPACT (Kampf '67). Very white and very beautiful, a self with just a touch of light yellow on the white beard deep in the throat of the flower. In bright sunlight there appears to be a sheen of silver on the petals. Growth characteristics excellent. RADIANT BRIDE (Tompkins '68). Chet's big tall new white is heavily laced, with tight standards and flaring falls. Fine. WHITE KING (Knopf '66). A grand white that should be a real standard of excellence for some time to come. Superbly formed and beautifully waved flowers of grand substance are grown on tall well-branched stems.

OFF-WHITE, CREAM, AND GREENISH EFFECTS

BLISS (Zurbrigg '66). Excellent pale cream or off-white with tight conical standards and semiflaring falls. Shows heavy lacing, rugged substance and nice branching. LUCILLE TOLMAN (Tolman '67). Graceful form and much ruffling add quality to this cream with lemon bordered falls. We understand it is very popular and it certainly deserves to be. COUNTY DOWN (Sexton '67). Could be called cream or light yellow; we will put it with creams. Huge flowers with globular standards and broad flaring falls show remarkable substance and are nicely laced. ROYAL TARA (Harbour '66). Listed as green; to us it seems to be a cream effect. Ruffled flowers stylish and sturdy, with lots of waving and a perky flare.

Stalks tall, strong and superbly branched. In our garden it bloomed early and long and got raves from every one. WILLOW WISP (Ghio '68). Beautiful flower, definitely on the green side of yellow; in fact just about the greenest thing we have ever seen. Has all the quality and beauty that we have come to expect when we see a new iris from this hybridizer. GREEN ILLUSION (Jennings '67). More green than yellow. Flowers have tight standards and broad round falls that flare nicely. They show a small violet blaze at the tip of the beard. SINGING PINES (Plough '67). Big, beautifully formed and heavily laced flowers show a great deal of green and are very attractive.

ORANGE, YELLOW, and YELLOW and WHITE

HOT SPELL (Plough '68). Intense pure yellow with self beard, closed standards and flaring falls. Certainly a brilliant garden subject. STAR TREK (Tompkins '68). Superbly substandard yellow with white blaze at beard. Standards tight and wide, with broad, wavy, semiflaring falls. Substance heavy and it grows tall. NOB HILL (Gaulter '66). Gracefully formed medium chrome yellow, touched brown at the haft. Lots of flare. GOLDEN SPECTATOR (S. Haney '68). Has tight golden globular standards and semiflaring falls of white edged with the same gold. KISS-ABLE (Neubert '65). Beautiful big yellow and white. Tight standards are yellow and semiflaring falls are white with a wide yellow border. LAUNCHING PAD (Knopf '67). Spectacular both in size and coloring. Closed ruffled standards are light yellow and broad, arched, flaring falls are creamy white with half inch gold border and gold beard. Fluted and ruffled, floriferous, strongly substandard and well branched. Quite an iris. LOWER LIGHTS (F. Brown '67). Creamy white flowers with golden shoulders; nicely formed and very heavily waved and laced. LIGHT AND LOVELY (Rees '67). Lemon standards and white falls with a golden shoulder. AD ASTRA (Babson '67) Immense blooms with lemon yellow standards and yellow-bordered white falls that demand attention. Truly spectacular.

PINK

CAROLINA DELIGHT (Powell '68). These exquisite orchid-pink flowers flare beautifully and are nicely laced. Beard almost self colored. Substance, branching and performance excellent. A pink that is different, and one of Loleta Powell's finest irises. DELICATE SPLENDOR (F. Brown '69). Blush pink in color, beautifully formed and heavily laced, a superb new iris. Excellent and well worth having. GENTLE PERSUASION (Tompkins '67). Pastel light rose pink with tangerine beard; has tight standards and broad, flaring, diamond shaped falls. CHANGING WORLD (Paquet '61). Still the palest of all the pinks, almost pink-tinged white. Unique and very desirable. PINK DIVINITY (Tams '67). Charming; light pink standards and falls of about same color bordered in a deeper pink. Beard almost completely self. PINK TAFFETA (Rudolph '68). Grand baby ribbon pink self, ruffled, strongly substandard and beautifully formed. LIGHT TOUCH (O. Brown '67). Peachy pink, almost a pink blend, because of excellence in form, substance and color, we find it most desirable. DAINTY INGALEE (F. Brown '65). Well formed and as heavily laced as any iris we have ever seen; a charming lavender pink with a red beard. Consistently good performer; remarkably good substance.

RED

BURNISHED GLOW (Schreiner '68). Another of Bob's grand new reds. Color very deep and rich; a gold-tipped brown beard. Takes hot sun and bad weather very well. **SCARLET RIBBON** (Tompkins '66). Tall, nicely formed, slightly waved red; excellently substanced, tall and well branched. **WAR LORD** (Schreiner '68). Probably Bob's best red; certainly the most waved and ruffled red we have seen. Flowers are strongly substanced and very nearly perfectly formed. **CHRISTMAS FIRES** (Tom Craig '64). Not new; this iris is mentioned because we thought it the most truly red in color of any dark red we have ever seen. **JEWEL TONE** (Schreiner '66). Exquisite ruby red, one of the best in its class, and a personal favorite with us since we saw it as a seedling.

BROWN AND TAN

GOLDEN BURLEY (Cramer '68). Superb golden tan flowers, beautifully ruffled closed standards and flaring falls; shows amazing weather resistance; grows on strong and widely branched stalks. Excellent performer and a truly fine iris. **GINGERBREAD CASTLE** (Tompkins '67). Self of glossy gingerbread brown; shows the same fine substance, excellent form, and immense size of its sister Starburst. **STARBURST** (Tompkins '67). Huge flowers with brown, gold, copper and red; amazing substance for a flower of this size. Stems tall and strong, with branching a bit high. **TAFFY TWIST** (Roe '66). Grand ruffled and laced, golden taffy brown flower; graceful, sturdy, heavily substanced and nicely branched. Excellent performer and very floriferous. **ACORN** (Hooker '66). Attractive "Buckthorn brown" with beautiful bronze gold beard. Satisfactory in every respect.

ORCHID, VIOLET AND PURPLE

HAUNTING RHAPSODY (Ghio '68). Lavender orchid self with blue beard; truly beautiful. Form graceful, substance sturdy, stalks tall and widely branched. Certainly well worth having. **NINEVEH** (Keppel '66). Purple with brown at hafts and brown beard. Beautiful iris. Not tall as we saw it. **FINAL TOUCH** (Terrell '67). Big, beautifully formed red-violet showing an almost metallic sheen in the sunlight. Will not only stand up and shout for attention in your garden; it will get it. **VIKING SPIRIT** (Carlson '66). Violet with touch of white at the throat, this dainty flower is nicely laced and, despite its appearance, is rugged. **ROYAL TOUCH** (Schreiner '67). Strong, beautifully formed and stylish, this deep blue-violet is truly outstanding. **LAURIE** (Gaulter '66). Gorgeous orchid-violet flower with beard white at the tip and gold in the throat; truly a crowd-pleaser.

BLACK

CAROLINA DUSK (Powell '68). Very nice and very dark, with just a touch of blue at the center of the very flaring falls. Form, substance and branching most satisfactory. **QUIET NIGHT** (Cook '68). Latest in the line of superb blacks from Paul Cook, this flower is fully up to his almost impossibly high standard of quality. **TAR LITTLE** (Powell '67). Darned nice black border iris that is a terrific performer. **MIDNIGHT DREAM** (Neubert '67). Very deep in tone; nicely formed, strongly substanced and gracefully waved. **STUDY IN BLACK** (Plough '68). Dark one on the red-violet side, with self beard. Good. **MASCARA** (Benson '67). Excep-

tionally well formed and strongly subenced, this very, very dark iris is reported to be slow to grow and to increase, but its color intensity is so great that we feel it is a must-have. DISTANT DRUMS (Tompkins '67). Velvety black of graceful form with lots of ruffles and heavy substance. We liked it very much.

PLICATAS OF ALL KINDS

KOREAN KAPERS (Powell '68). Creamy flowers stitched dark red around falls and standards. Most satisfactory as to form substance and branching; and is very good performer. SUVA (Plough '68). Blue and white plicata of large size with tight standards and wide, semiflaring falls. Good. EASY STREET (Tompkins '66). Nicely formed flowers of clear white with a deep blue border on both standards and falls. We liked it. CURTAIN CALL (Schreiner '67). Well formed and most attractive rose and white plicata that is certainly new and different. CAROLINA POLKA (Powell '68). Plicata that shows rose-pink border on white ground. Nicely formed, strongly subenced and widely branched; floriferous and an excellent performer. CINNAMON MIST (Plough '67). Very attractive cream and tan plicata that we liked very much.

BITONES, BICOLORS, VARIEGATAS, ETC.

PENTHOUSE (Ghio '68). Very light blue standards and flaring, ruffled, deep blue-violet falls combine to produce a startlingly beautiful iris. Fine in every respect. CAROLINA HOPE (Powell '68). Charming and unusual flower showing white standards slightly tinged violet at the base, and flaring rose-violet falls showing a darker rib. Good form, nice ruffling, strong substance. Very different and very good. MARGARET ZURBRIGG (Zurbrigg '65). Stylish, tailored iris with very white standards and deep purple falls; amazing substance. We like it a lot. GENTILITY (Tompkins '68). Dandy big blue and white amoena. MOUNT EDEN (Ghio '65). Blue-white standards, darker falls, on a finely formed flower. A truly beautiful iris. GENTLE PRESENCE (F. Brown '66). Charming ivory white and violet bitone, beautifully formed and nicely subenced. MEREDITH HUES (Powell '69). Loleta named this for her college colors. Standards light pink or pinkish white; falls red with a light border. Substance, form and branching very satisfactory. DIPLOMACY (Keppel '66). This grand flower, with pale blue standards and dark blue falls, has a particular appeal to us. CELEBRATION (Ghio '68). Nicely formed and heavily laced flower shows lots of flare. Coloring a combination of melon, peach and apricot, blending with tan, pink and gold. Whatever you call it, it is beautiful, brilliant, and a real attention getter.

HAZEL T. McCAFFREY 1969 INTRODUCTIONS

1215 Travis St., El Paso, Texas 79903

ALTA SKY, IKE BABY, CLIVE, FALL CREAM, LEMONITE,
ANNIE, GOLDEN THROAT and CREAM QUEEN. \$10.00 each.

Scorch Disease of Rhizomatous Iris

J. G. Bald*

Cause of scorch.

Scorch disease of rhizomatous iris is caused by a bacterium, a species of *Pseudomonas*. For many plant diseases a simple statement of this sort explains a great deal about the incidence and progress of infection, and readily suggests a method of control. Not so with scorch disease. Scorch depends for its full development on a balance between the pathogen (i.e. the disease-producing organism) the climate, the growth of the host plant, and other conditions that can be guessed but are not yet understood.

The first indication that *Pseudomonas* might cause scorch disease arose as a result of work on another disease, scale tip rot of lilies, caused by the same bacterium. From scorch-diseased iris we isolated bacteria that looked like the lily *Pseudomonas*. We inoculated them to bulb scales of Easter lily, had positive results, and reisolated the original bacterium from the lily scales.

Previously we had isolated two fungi, *Fusarium oxysporum* and *F. solani*, from scorch diseased iris, and tested them quite thoroughly on disease-free iris plants grown from seed. Only *F. solani* produced *symptoms*—a mild root rot, causing some stunting of inoculated plants. This was a false lead, but it encouraged us to propagate a disease-free stock of iris for our experiments from a semi-dwarf seedling plant that multiplied freely and reacted well to greenhouse conditions. We used this single clone in our later trials with the bacterium *Pseudomonas*.

Symptoms.

At Cornell, Dr. Dimock had been interested in Scorch disease, which was endemic in the New York area, whereas in Southern California it occurred rarely and sporadically. I spent a summer at Cornell, and together we studied the disease, using part of Dr. Randolph's planting of iris varieties and hybrids as a field plot. The generous cooperation of Drs. Dimock and Randolph helped greatly in obtaining information on the nature of the disease. We did not at that time identify *Pseudomonas* as the pathogen; but immediately this was done, much of the information fell into place, and we found we knew more about the disease than we imagined.

The description of "scorch" given by Dr. Dimock in the American Iris Society publication, *Garden Irises* (1959), edited by Dr. Randolph, is as follows: "The symptoms . . . start with a gradual dying back of the plants, beginning at the tips of the leaves. The dead leaf tissue turns brown or reddish brown and the trouble usually starts with the center leaves of the affected fan. Eventually the leaves die back to the rhizome, although the rhizome itself remains firm. The fleshy cortical tissues of the fibrous roots of affected plants start to rot or become digested, first at some distance from the rhizome, but later throughout their length. In advanced cases nothing may remain except the tube-like outer tissue of the roots encasing the rot-resistant fibrous bundle of conducting tissues. As with the leaves,

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Fig. 1. Scorch disease of rhizomatous iris, early symptoms. The central leaves of a fan are withering from the tip. There is no definite margin between the dying tissue at the tip and the green leaf base.



Fig. 2. Scorch disease of rhizomatous iris: the withering of leaves is advancing towards the base.



Fig. 3. Scorch disease of rhizomatous iris: a young infected plant in the field, photographed against a black background. Behind to the right is a healthy plant.



Fig. 4. Scorch disease of rhizomatous iris. Two-year plants, infected and dying, on either side of a healthy plant.

the dieback of the roots stops at the rhizome, or, at most, penetrates it very slightly." The onset of symptoms is sometimes very rapid but although it may seem to happen overnight, it is progressive rather than sudden. Figures 1-4 illustrate the foliar symptoms.

There is also a chronic phase of the disease. Plants surviving the initial attack may persist almost indefinitely, but they seldom regain full vigor. Roots emerging from the younger tissues of infected rhizomes become senescent and rot more quickly than roots of healthy plants; the older sections of rhizomes tend to disintegrate in the soil, and new rhizomes are slow to swell out from older ones.

***Pseudomonas* and associated fungi**

The pathogenic bacterium from iris is a member of the "fluorescens" group of the genus *Pseudomonas*: the bacteriologists who have examined our cultures have not given it a specific name. Dr. Starr of U. C., Davis, suggested that the *Pseudomonas* isolates causing diseases in lily and iris are closely related to or the same as two named species causing soft rot disease in onion. He sent us cultures of the onion pathogens, and like the isolates from iris they produced typical lesions when inoculated into lily scales. That is as far as identification of the iris *Pseudomonas* has gone.



Fig. 5. A single bacterium of *Pseudomonas* sp., the cause of scorch disease of rhizomatous iris, photographed under the electron microscope. The bacterial cell is slightly shorter than average, but the 2 flagella arising from one end are characteristic. Photo-micrograph by Dr. Paul Desjardins. Magnification about 14,000X.

Seen under the electron microscope the lily and iris *Pseudomonas* is a rod shaped cell with two whip-like flagella (Fig. 5). When it is young and vigorous, it uses its flagella to swim actively in liquid media or water, and no doubt this helps it to infect iris plants from films of soil water around the roots. *Pseudomonas* has difficulty infecting unwounded tissues; under experimental conditions it generally gets in through wounds. Our inoculation methods always involve the wounding of tissues in the presence of a bacterial suspension.

Most of our pathogenicity tests were done during two periods around 1961-62 and 1965-66. Both times we used plants from the same seedling stock for inoculation. During the earlier period we obtained clear evidence of pathogenicity, but symptoms were not so severe as typical field "scorch"; during the later period we reproduced scorch symptoms. In between the

two series of trials the whole stock of test plants became infested with a strain of the fungus, *Rhizoctonia*, which entered the iris roots and grew between the cells, apparently doing the plants no harm. It behaved somewhat like the mycorrhizal fungus that is essential to the growth of orchids. *Rhizoctonia* has been demonstrable on the roots of most rhizomatous iris plants from California that we have examined. We have not been able to associate it directly with symptoms of disease, but the question arises, does it help *Pseudomonas* to enter the roots of iris plants and cause "scorch"? We do not know.

There are other possible complications. In lilies the damage caused by *Pseudomonas* may be intensified by strains of *Fusarium oxysporum* that cannot by themselves cause a disease. *F. oxysporum* has also been regularly found in the roots of scorch-diseased iris. Perhaps the same association between *Pseudomonas* and *Fusarium* exists in both lily and iris.

Disease Cycle.

The acute phase of scorch disease occurs most often in plants grown where a warm spring follows a cold winter. In southern California, it is a rare disease. The contrast led us to examine the growth cycle of rhizomatous iris plants in New York State and southern California. Cold winters bring the growth cycle of rhizomatous iris into phase, roots are produced, then foliage; and when the blooms are developing and expanding, other growth almost stops. It is at this time that the disease attacks. Judging by our experience with lilies, the *Pseudomonas* attacks in moist soil at temperatures around 60° but not much above 70°F. It can destroy the root system in a short time; and replacement of roots is difficult because the production of foliage and flowers draws away the plant's reserves of food stuffs. In New York the incidence of the disease is generally reduced during the hottest months. It may rise again in autumn, but seldom to so high a level as in spring.

In a climate with a mild winter root growth occurs throughout the year, the production of leaves and flowers is not forced to a climax in so short a period, and plants have a better chance of making good the loss of roots rotted away by *Pseudomonas*. However, in southern California the balance can be upset, and the acute phase of the disease sometimes appears.

The iris *Pseudomonas* is carried in or on rhizomes or roots of infected plants. The chances are it spreads after harvest from infected to healthy rhizomes by contact during handling and trimming, and through infested soil and plant debris accumulating on work benches and on floors. There is evidence of some spread between adjacent plants in the field—whether by soil water, splash, or root contact is unknown.

Control.

Working on a plant disease in a region where it does not normally occur reduces the chance of testing control measures practically to zero. However, it is possible to make a few suggestions for the control of scorch disease of iris based on the fact that it is caused by a bacterium.

Knowing there is some spread through the soil, it is safest to assume that plants next in the row to diseased plants are also diseased. While symptoms are clear, mark those that are diseased. Unless diseased plants are indispensable or there are too many or they are too large to handle easily, dig, place in a container to carry from the planting, and destroy them. If they

are left, then when digging a planting or individual clump for division, take out healthy plants first, diseased and adjacent plants later. Plan all operations on an assembly line principle, so that clean healthy stock never goes back along the line and makes contact with trimmings, soil, or debris from other plants. Get as much soil as possible off the roots in the field; and at the other end separate the sorting, packing and storage space as clearly as possible from the area where dividing, cleaning and trimming are done.

One of the best and most generally available materials for treating the recently cleaned and trimmed rhizomes is sodium or calcium hypochlorite, in the form of household bleach. It is also supplied in larger amounts of higher concentration for use in swimming pools. Dilute before use to 1/2 per cent of the active material. The same solution may be used for washing benches, floors, plastic sheeting, wooden flats, etc. However, knives or other metal objects must be washed in clean water after dipping to prevent corrosion. Plant material does not need to be rinsed after dipping. The dip rapidly loses strength and should be regularly renewed.

Treatment of rhizomes with an antibiotic is a possibility. The one generally available is streptomycin, marketed under several different names. As a dip for the rhizomes 200 parts per million of the active substance is as high as one can usually go without some yellowing and stunting of the plants. Although some *Pseudomonas* species causing plant diseases are fairly resistant to heat and to formaldehyde, one species, causing bacterial scab of gladiolus, is known to be sensitive to 200 ppm. streptomycin used as a presoak for bulblets before hot water treatment. There are other indications that streptomycin might work at least as a preventive of surface contamination.

Landscape Planting of Japanese Iris

W. A. Payne

The Japanese iris, the garden varieties of *Iris kaempferi*, which was originated and perfected by the hybridists of Japan, has not been used here in America to the extent its superior ornamental qualities as a landscape subject merit, and in localities where its growing requires little or no special attention it has been grown mainly for superior bloom. Aside from the extraordinarily attractive flowers, the stately, rather dense, upright plant of pleasing texture and rich green, gracefully flexed foliage, itself is a thing of more than ordinary beauty and retains its attractiveness throughout the growing season.

Though this iris associates well with other plants when grown in the mixed perennial border, its bold appearance at all times makes it essentially an accent plant, and when in bloom with its large flowers, which are carried above the foliage in a more or less horizontal plane, it dominates the garden scene. Inasmuch as most varieties grow from three to four feet in height, they generally should occupy a location well to the back of the border where they may be faced down by some of the smaller growing varieties which range in height from eighteen to twenty inches or upward, or by lower growing plants. These miniature varieties also may be used effectively as specimen plants nearer the front of the bed.

The Ise strain of *I. kaempferi* also is of smaller stature, very lovely and quite distinct in plant habit and flower form from either the Edo or Higo strains, which are those commonly known in this country. It is well adapted for use in the flower border, though perhaps best suited for special arrangements such as those of small Japanese gardens or in rockeries.

The color range of the Japanese iris is limited to shades and tints of blue-violet, red-violet in solid colors and various color patterns and pure white. There is no yellow as a body color such as in the bearded irises, but small signal patches of yellow are present in all varieties, though the amount of color is of no importance in the general color effect. The overpowering effect of their bold masses of color, however, makes them unsuitable for carrying out an elaborate color scheme in the mixed border, since few flowering plants have the impact to associate effectively, except possibly some varieties of the early blooming hemerocallis and the early lilies. The universally popular delphiniums, which bloom simultaneously through the iris season, do not lend themselves, in general, to a happy combination inasmuch as some of their blues do not harmonize with the violet tones of the iris. As a consequence their use in close association in the border requires careful discrimination. Clumps of *Gypsophila paniculata* which form a cloud of fine foliage and tiny white flowers, or *Artemisia lactiflora* with its feathery, grayish effect, combine beautifully with the iris and are useful as a foil in isolating colors which are incompatible. In planting the border strong plants of three or more shoots are best set in early spring, since this assures bloom on fully mature plants the following year.

It is in such plantings as those about pools or lakes or along a stream or water course that the special ornamental qualities of the Japanese iris are most effective. In such situations they have the particular appearance of belonging and the effect at all times of incomparable beauty. They complement the flat effect of the water lily pads and harmonize with most water plants. The horizontal effect of their bloom also repeats the flat surface of the water and the reflection of the flowers in the water adds to the aesthetic effect. Even the swaying movement of the graceful foliage in the breeze appears to reflect the ripples on the surface of the water nearby.

In waterside plantings such as those about pools or lakes, one may use only a few plants of select varieties in groups, always in scale and not overlarge, placed in strategic locations about the edge of the water and not in a continuous border surrounding the pool. Along a meandering stream or a water course in large areas and public parks. However, hundreds or even thousands of plants may contribute to the planting. In these larger gardens winding footpaths may lead through the broad masses of plants and over arched bridges, in the Japanese fashion, to allow close inspection and full enjoyment of the flowers. In such massed plantings which include an indiscriminate mixture of varieties there is never any lack of color harmony, and the general effect is rather light and airy. For a particular and more emphatic color scheme, they require planting in broad masses with a number of plants of each color for best effect. In any arrangement the plants should be set separately two feet apart to allow for full development yet give the effect of a well-filled area. They should also be set some little distance away from the water's edge where, instead of

water covering the crown, the plants can send their roots down to the water level. Though the Japanese are moisture loving and resent dry, impoverished conditions, they are by no means water plants and will not withstand submergence for any length of time during the winter months; especially is this true in the colder climates. Flooding of plantings previous to and during the blooming season results in maximum growth and magnificent bloom. After the blooming season plantings should no longer be flooded, but the plants left to grow in only a moderately moist soil throughout the remainder of the summer and during the winter months until plants have started well into growth in the spring.

The Japanese iris is a ravenous feeder and thrives best in a rich, slightly acid, well-drained and deeply prepared soil consisting of humus such as compost, well-rotted manure and peat moss, this supplemented with commercial fertilizer preferably of the acid type and the whole well mixed into the soil before planting. Cottonseed meal is especially valuable as a fertilizer since it is acid in nature and is slowly available, which feeds the plants over a long period and minimizes the danger of burning. It also may be used to good advantage as a top dressing during the growing season. Soil acidity appears optimum at about pH 5.8, though the plants will thrive in soils ranging from neutral or slightly above to about pH 5.5. Lime in any form, such as bonemeal or wood ashes, should be strictly avoided. A slight yellowing of foliage generally indicates lack of acidity and may be corrected by a light application of powdered sulphur, iron sulphate or a commercial acidity corrective which is available at garden supply shops.

In most gardens the iris deteriorated after three years of blooming and is in need of replacing after the soil has been reconditioned. Such transplanting as is necessary should be at once after the blooming season. In favorable locations, however, especially those well supplied with moisture and occasional applications of plant food, they may continue to thrive and give abundant bloom of excellent quality for many years. In the colder regions, where the soil is subject to freezing and thawing, a mulch of some loose material is always necessary the first winter to prevent heaving and loss of newly set plants. In most locations the Japanese iris will not prove difficult to grow if some little attention is given to its preferences, and will respond with a lavish display of delightful color in early summer if only the ordinary essentials of good garden practice are observed.

BACK BAY (Ulm 1970) Sdlg. 61-9E TB—36", ML, B1D.
Violet-blue self, blue beard. Galilee x Allegiance.

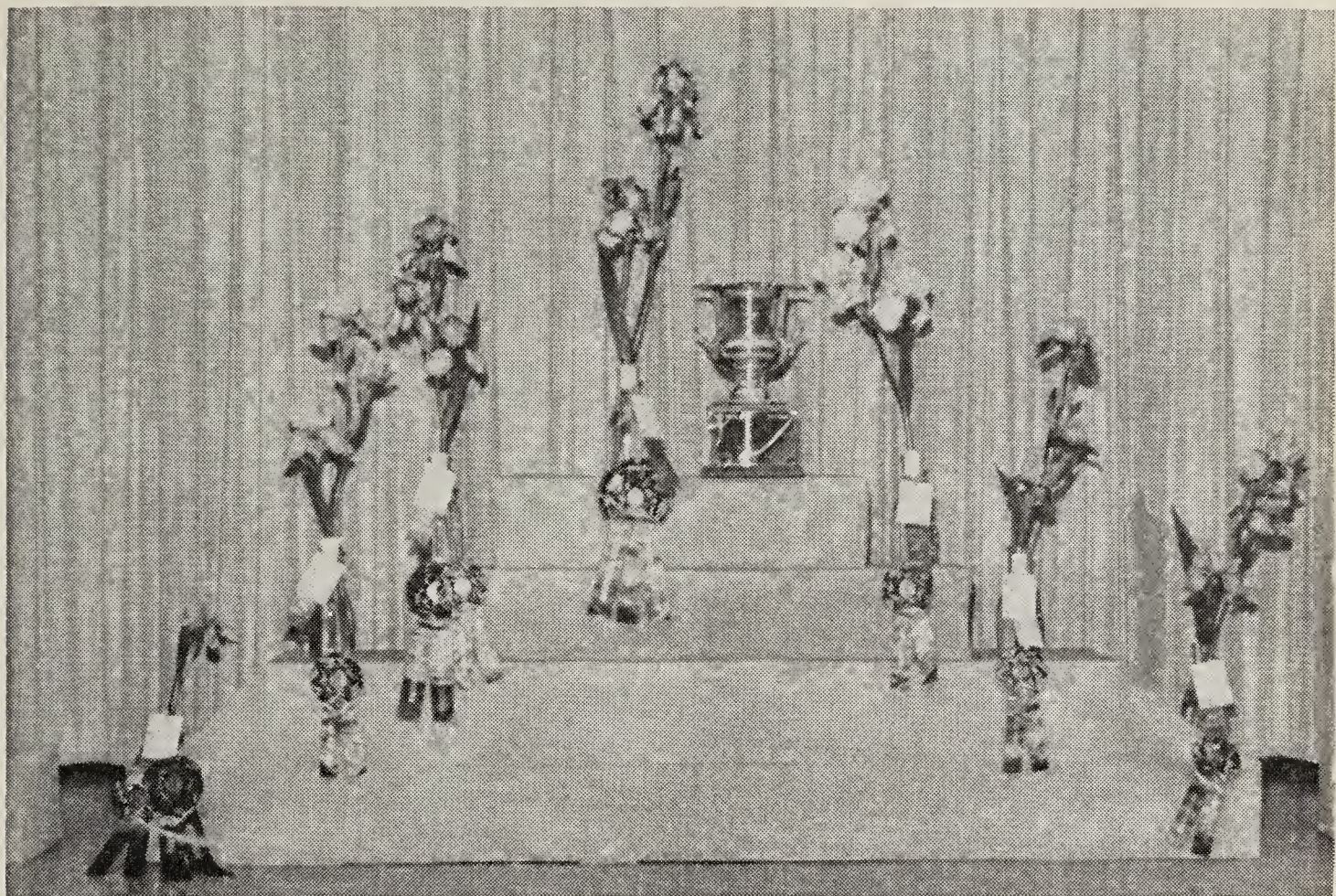
Slightly ruffled, excellent form and substance; three-way branching with good placement, multiple buds insuring long blooming period.

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Queen's Court, Tulsa Area Iris Society Show

Intermediate and Standard Dwarf Bearded

Alta Brown

INTERMEDIATES. ANNIKINS (Warburton '67). Terrific. Smooth, rich blue-purple; self beard; lovely flared form; stalk with three branches and five buds. BROWN DOLL (Schreiner '68). Well-proportioned medium red-brown with velvety darker red-brown spot on flaring falls. Lovely color. BLUE VISION (A. Brown '69). Clear, smooth sky blue, nicely ruffled and flaring; better than average substance; 22". BERRY PARFAIT (Warburton '69). Most unusual in coloring. Standards blended rose and chartreuse; falls reddish purple edged chartreuse. In good proportion here with three branches and five buds on 19" stalk. Heavy bloomer and sometimes leaves but a few increases.

COOL PERFECTION (Rosenfels '67). Lightly ruffled lemon yellow with touch of white below self beard. Good form. FROSTED CREAM (A. Brown '68). Wide, ruffled cream with lighter falls and cream beard. Heavy substance causes it to glisten as though frosted. DOLL TYPE (Hager '68). Dainty plicata of white and violet; purple style arms; good shape.

I am very pleased with the new red intermediates. INDIAN FIRES and INDIAN DOLL (both Greenlee '68) are excellent. The latter grows shorter, about 16", is a bright red self, a bit darker than LIGHT CAVALRY, but not as well formed. INDIAN FIRES is a rich deep red, with a larger darker red spot around the bronze beard. Good shape and proportion. Beautiful iris with qualities of the TBs. BIXBY (Greenlee '66). Another fine deep wine red with velvety falls, open standards, two branches, and

grows 15-16". LIGHT CAVALRY (Jones '67) is a stunning red color, darker around the beard. Falls wide and semiflaring; standards nearly closed. Flower size was a bit too large for the 15" stalk, which bloomed on a three-year clump here. Each of these reds is fine and worthy of a place in any garden.

ORANGE RIOT (A. Brown '69). A worthy addition to this rare color in intermediates. Bright apricot-orange, very clean and smooth, with wide bushy tangerine-orange beard; wider falls and better form than its parent, LILLIPINKPUT. Two branches and five buds per 21" stalk. Two- or three-year clump really is a riot of color. ROCKET FLAME (Greenlee '68). Bright golden brown plicata. Standards golden brown; flaring yellow base falls are dotted and stippled brown. Dime-size white area at tip of orange beard. Excellent form; beautiful color. On one-year clump, stalks were 18", with three branches and six buds.

Other intermediates that were good are PIXIE SKIES (Hamblen '66), lavender-blue with slightly lighter standards and light blue beard; the well-formed flowers were a bit large for the height of the stalk: the attractive SING AGAIN (Plough '66), with its deep yellow falls, pale yellow standards and cream beard: ROYAL EVENT (Peterson '65), rich medium red-violet of excellent form: RASPBERRY ACRES (Greenlee '68), lovely white ground, raspberry-rose plicata: and last, but not least, FROSTED CUPS (Warburton '66), a frosty white of good shape; beautiful both at Milwaukee and here.

I was most happy with the performance of ISLE OF DREAMS and JUNE PROM, both of which put on a terrific show at Milwaukee and here. Many people are confusing JUNE PROM with Ghio's JUNIOR PROM. Please note that they are two different irises in different classes.

STANDARD DWARF. Possibly the most unusual color combination of recent SDB introductions is BLUE MOSS (Jones '67). Words are not adequate to describe it, but standards are lavender-blue and falls are greenish tan (or olive green) with a streak of blue down the length of the falls, below the bronze beard. Good shape; terrific color. ANGEL MUSIC (A. Brown '68). Wide petaled, ruffled, clear lavender-blue with heavy self beard and lovely form.

In the red class, CHERRY GARDEN (Jones '67) is the outstanding one. Tailored, rich maroon-red, self beard, excellent form. BLOODSPOT (Craig '66) is a darker red with very dark red, velvety spot, a little ruffling and open standards, which is its only fault. Beautiful color! WEE LAD (Plough '67). Another fine red, on the dark mahogany side; good form. Each of these three is different and well worth growing.

BLACK BIT (A. Brown '69), having a dwarf for one parent, blooms with the early SDBs and is daintier in size. Smooth sooty red-black with slightly darker overlay on falls. Good shape; grows 10-11". LITTLE BLACKFOOT (Reinhardt '67). Another red-black of good form; had six bloomstalks on one-year clump from single rhizome. This was seen reblooming in Milwaukee gardens. FIRST NIGHT (Rosenfels '67). Smooth dark velvety purple of good shape. SLUMBER PARTY (Warburton '68). Smooth dark violet with darker blackish falls edged lighter. VELVET TOUCH (Dennis '66). Rich, smooth red-purple with heavy violet beard. ROYAL FAIRY (A. Brown '68). Velvety dark royal purple

with fuzzy light violet beard and excellent form All are worthy additions to the dark class.

I loved the color of MYRA (Greenlee '66). A pastel blue-orchid or heliotrope with darker lines on each side of wide, orchid beard. REGARDS (Hager '67) is without doubt the most exotic iris and hard to describe. Standards are a smoky rose-orchid and falls a smoky maroon-red highlighted by a violet beard.

ORANGE KEY (Greenlee '66) was the only new white SDB observed. Excellent form and starchy substance; a bright orange beard sets off the clean waxy white.

SKY BOLT (A. Brown '69) is different, and more ruffled than most SDBs. Light blue with smooth green overlay on falls, lighter toward the edges. Beard is blue; form wide and flaring.

In the yellow class, MARINKA (Dennis '64) is lovely and colorful. Well-formed bright mustard yellow, with brown at haft and lavender-blue beard. KIX (Schreiner '68). Bright metallic yellow self that could be used in breeding for pinks, as it comes from Pink Fulfillment X Carpathia. PLATINUM GOLD (Roberts '67) is a sister of his pink, LENNA M. It is a dainty flower of cream-yellow standards and white falls, with bright yellow thumbprint around the white beard, and yellow at edges of falls. SUNLIT TRAIL (A. Brown '69). Lightly laced and ruffled; bright sunny yellow, slightly lighter at edge of falls; light blue beard.

Of the new variegatas, WATERCOLOR (Roberts '68) is a dandy. Standards are rich yellow; falls maroon-brown with yellow haft and narrow yellow edge around the brown. Beard is orange and bushy. Shape good. RITZ (Schreiner '68). Medium yellow with a large broken spot pattern in brown. Nicely flared. Flower size a bit too large on a one-year clump. One of the best variegatas seen to date is a seedling here, M 1306-11, now registered as WOW (A. Brown '70). Closed, bright chrome yellow standards; top flaring falls of solid, smooth oxblood-red, narrowly edged yellow; orange beard. This caused many a visitor to exclaim "WOW!"

The Ones I Liked Best in Milwaukee

Eleanor Westmeyer

ELEGANT CHARM (R. Brown '68), because of its exquisite colors—blue beard on a rosy violet flower of classic form with nicely domed standards and slightly flared falls.

STRANGE MAGIC (Plough '69), because it is truly different, a pale flower with violet shading and deep violet in the heart of the flower and a violet stripe from the tip of the beard to the edge of the falls.

JUNE PROM (Alta Brown '69). An intermediate that is trim and blooms profusely. Blended, it gives a white effect and makes a handsome clump with flowers in excellent proportion to the foliage.

FIREBALL (Schreiner '67). Best new red I have seen. Aptly named and simply gorgeous with the sun streaming through it. Well rounded form with some ruffling.

MAID EN MILWAUKEE (Protzmann). A very perky white with a good stalk and flower that is not too large. Handsome in a clump.

Birth of a Convention

Mabel Clare Jendel

“How many of you would like to host a national convention of the American Iris Society?” This question was asked by Russell Morgan, President of the Wichita Area Iris Club and now RVP of Region 18. Dozens of hands were raised, among them the neophytes with stars in their eyes. Most of the seasoned convention goers sat silently, reluctant to take on such a convention with all its demanding hard work, planning, time-consuming attention, disappointments, weather hazards and criticisms.

Nothing would be more beautiful than a perfect iris convention, they thought. But whoever heard of a perfect iris convention. Assigned chairmen of committees find that they are cast upon a sea of perplexity and become fearful of the outcome. What seemed to be a perfect pair of shoes began to pinch; disagreements arise between otherwise eye-to-eye tired workers. Tired backs begin to rebel. Park boards are not responding quickly. Tour garden owners feel that the time allotted them is not going to be the prime time for their garden exposure. Transportation problems loom up. That Guest Iris Chairman is being just a little partial. Why doesn't that Publicity Chairman get on the ball and let the whole world know we are going to have an iris convention in three more years. We wonder if we have chosen the best hotel for our convention. Maybe we shouldn't have taken on this convention. It's a big five-year job. How are we doing financially? The hills of doubt begin to loom as insurmountable.

Does all this sound “wacky?” I'll venture to say that every city that has hosted a national iris convention has heard all this many times. **BUT WHAT DO YOU THINK!** Things begin to level off. The gardens are beginning to look lovely and take form like convention gardens should. The parks and city look beautiful. The planting is done and we are all getting a little rested and everything looks pretty good after all. The hybridizers have responded generously. That Guest Iris Chairman surely knows what he is doing. We all have lovely irises for our tour gardens. Our finances are in the black, even if our Finance Chairman is taking a Hawaiian tour. Even the weather man is becoming cooperative and the Park Board has found time to help us on our beautiful island. The hills of doubt we have been climbing are beginning to smooth out to a plateau and we are on it, working as a unit, helping each other, compliments instead of criticism, and now the rainbow is showing on the horizon—the rainbow of iris. We are joyous and jubilant—our convention is being born. The question Russell Morgan asked in 1967 was as Neil Armstrong, Astronaut, said, “One small step for a man, but a giant leap for mankind.” It is magic! Our show is on the road! Convention 1971.

NEW YORK 1970

WICHITA 1971



Peggy Burke Grey, Editor

Applications for all Robins go to Peg Grey, 8191 Franz Valley Rd., Calistoga, California 94515.

News Around the Robin Program

Aril-Arilbred Robins: Leda Christlieb, Severy, Ks., is our new division chairlady. She takes over from Lee Kohler, who took the job temporarily last year to reactivate the division. He's resigning to head another sort of flight—model airplanes! Esther Terrill, another Kansan, takes over direction of one robin; Leda is organizing more . . . Added to the **Robin Program Committee:** Edith Smith, who heads our Regional Robins Division, and Lorena Reid, who chairs the Louisiana Irises robins and directs in several major divisions. Both ladies are experts in robin organization work . . . **Irises in General robins** have transferred without denting an egg from Carol Ramsey to Maidel Van Horn, Nitro, W. Va., one of the division's top directors. Carol has long been a sort of second-in-command of the RP ship of state and remains on the committee. We couldn't fly without her! . . . **Soon to start,** another **Green Special** for collectors and hybridizers of this color class, and another **Red Special**, applications to the RP chairman, address above.

We really should point out more frequently that Flight Lines is the product of dozens of reporters and editors in the scores of robins and of the members contributing to everyone's better understanding of The Flower. Bless 'em all! Particularly, this time we bless Edwin Rundlett, editor of *The Reblooming Reporter*, for a major portion of the material here, sent in at deadline despite the fact he and Mary Ella were in a rush preparing to vacation in the Maine woods.

The Little Early Ones

Mildred Brizendine, Topeka, Ks., who knows, grows and breeds them all, reports: "Of the SDBs, I felt Wilma Greenlee's DUPLEX was most outstanding, a fine finish on this deep purple with a lighter edge. It really stands out in the garden like a beacon light. Then, the biggest thrill was to see Grace Guenther's flamingo pink PRECIOUS ONE. It is a real *pink-pink* and a lovely thing. Her FLAMING DAWN is more to rose than pink. I was interested in her CREOLE BABY because I am working browns, but hers is very different from mine. Earl Roberts' LENNA M. is nice, but more buffy than pink. Some of his others I liked were SPRING FERN, DESERT HAZE and PLATINUM GOLD, though a little narrow. Bennett Jones' CHERRY GARDEN was a fine red but I also like Sam Street's RUBY ROCK. Also liked FI-LEE and MYRA of Wilma

Greenlee. Orange CAPER, HONEY BUG, SKY BABY, DEEP LAVENDER and BLONDE DOLL were excellent in my garden.

“Of the IBs, I feel ARABI TREASURE was the best in every respect. Wilma Greenlee’s come next. Her reds, INDIAN FIRE and 64-6, are outstanding. RASPBERRY ACRES and SNOW CHERRIES are red plics. ROCKET FLAME is much like GOLDEN SPICE. GLIMMER is a gray-tan with purple beard, most outstanding. Her SNOW FLECK, a pale blue plic, and DANCING ZENITH, a light blue, are good. Orpha Salsman’s WAGON TRAIN, a brown, and INTERIM, a yellow and white Pinnacle type, were both good. LILLIPINKPUT, though old, was very good this year. SMALL WORLD is undoubtedly the best white IB. Mrs. Guenther’s ORIENTAL BABY is one that should be way up at the top, tan standards and brown falls and very horizontal.”

Carol Ramsey remarks on some MDBs in Jim Fry’s Wichita garden. “I liked ALASKAN ICE, perfectly lovely icy-white, with a hint of bluer wash on the falls, not a spot. It flared; looked classy. Also loved BLUE CAPER; hard to judge much except color, a lovely light blue with a blue spot, rather scrawny first-year plant, but color it had. Jim has built a rock garden in a terraced location for the MDBs and they really display beautifully in such a setting.”

From MayBelle Wright: “Do buy some of the newer intermediates; they are great! And try a few crosses for small things. They bloom before the big hectic rush of TB time and are really fun. I didn’t have anything special among my SDB seedlings this year but some of my small things with odd-ball ancestry were very interesting. The Lillipinkput X Yellow Dresden babies were nice with good clear color and form, but the falls were narrow. Dream Maker X Yellow Dresden (3 species + tall) even included a Progenitor type with yellow standards and blue falls, and the Barbi X Yellow Dresden seedlings were miniature replicas of BARBI, some yellow, some cream and with wide falls. One came through loud and clear: YELLOW DRESDEN crossed to intermediates gives pencil slim stems, small flowers and fine foliage. Could be a tip for breeding MTB at the tetraploid level.”

Shows and Such

Bob Demory, Richardson, Texas, tells of an interesting experience which introduced him to a new friend. “About ten minutes before the judging of the Dallas Spring Iris Show was scheduled to start, I received a phone call from a lady who had read about our show in the local paper. On show day she went out in her garden and saw the most beautiful iris in bloom and knew it was a blue ribbon winner. How do you enter an iris show, was her question. I told her if she could get her entry to the garden center before the judging started we would be most happy for her to enter it. She hung up and, in a short time, in rushed her husband, bloom stalk in hand. A beautiful specimen of DOROTHY RAE, one of Cochran’s introductions. When the judging was completed I made a special point to see the judges’ opinions. She won the blue ribbon. This lady and her husband were so happy they were almost in tears. They took the bloom stalk and ribbon to Mr. Cochran immediately following the show. Needless to say, these fine folks are now A-1 prospective members of our Society.”

Carol Ramsey comments on a matter of importance in Wichita which

might be noted by other clubs. "With the increasing interest in arrangement sections of the shows, our vice president, Eloise Woodman, had the idea of an arrangement clinic for any novice arrangers. It's to meet at her home on three successive Saturdays, and is being taught by three of our top gals in the club. We have also encouraged the youngsters to take part in this. Our daughter Martha is going and very much enjoyed the first meeting. We also added more classes for juniors in our shows and have classes for beginners."

Concerning show containers, Carol notes, "We use one quart brown milk bottles donated to the club by a local milk producer some years back when they switched to square cartons."

Irene Wilhelmsen, Livonia, Mich., writes, "Our society uses clear plastic tubes about the height and width of milk bottles. We also have small blocks of black-painted wood (the club made them) with holes reamed in them to hold the tubes. We were given the tubes for a very small amount. For our first show we rented similar containers from another garden club. We have about 500 of the plastic tubes right now."

One of the most fabulous flower shows held in the United States is that of the Society for the Louisiana Irises staged annually in Lafayette, La. Ila Nunn of Houston tells about it. "The handsome seedlings *make* this show the wonderful and thrilling thing it is. The named varieties are well represented and judged by variety according to AIS standards. The thrills are linked with the new ones and that is why we travel all those miles each year and wouldn't miss it for anything. The people are very important too. Iris friends are important friends and the best of all. MRS. IRA NELSON, exhibited by Charles Army, won top seedling award and it is a beauty. The members of SLI select their favorites by number and beautiful special awards of silver are presented at the banquet. The men who bring their seedlings to the show make it what it is. Without their dedicated effort and that of Barbara Nelson, Marie Caillet and others at the university we would not have this annual delight, nor would there be such marvelous progress in this field."

Those Southern Beauties

Marvin Granger, Lake Charles, La., is one of their leading hybridizers. Like so many prominent irisarians and horticulturists his work days are spent with the U. S. Postal Service. He tells about his irises. "Hybridizing Louisiana irises has been one of the most interesting and absorbing things that I have ever gotten into. Many times I almost quit but for the prodding and encouragement of people like Ella B. David, who always seemed so excited about the possibility of doubles, and who always gave me a pep talk at show time every year, and my sister, Mrs. J. B. Clay, who lives next door and who kept encouraging me when my spirits dropped to low ebb after a bed of seedlings bloomed, an incredible number of dogs. Some of these had puppies that also grew up to produce more dogs. But eventually along came DELTA STAR (Creole Can-Can X The Khan) and the hope began to rise. I had harbored the fear that maybe Can-Can was a sterile mutant and that nothing could be done with it. Then a year or two after DELTA STAR appeared, a batch of seedlings from two out-crossings produced a whole bed of cartwheels and several semi-doubles, and one real fru-fru double. The sight of these made all the years before fade away

and a new vigor sprang up. From these and Delta Star crosses, several lines of outcross breeding are being brought together which will, I hope, bring out the doubles that I foresee in the future. My mental pictures don't always get out of the development room, but some of the things that show up now and then are very encouraging. The yellow double that bloomed a couple of years ago was the most encouraging color break I've had so far. It is not the type flower form that I am after, but just to get the break in color after twelve years of line breeding was a real joy. I must have danced on the spot because the grass was tromped flat the next day in front of that particular bed of irises.

In the hybridizing program I have run into some trouble. I have found a high susceptibility to rust in a great number of the 'double' crosses. This is truly a double-cross, because some of the better doubles have had a bad case of rust this year. This means a hold-up in the release of these irises. I had hoped to be able to release some of them soon. I think that an iris, to be a good garden variety, must be rust-free, having a high rust resistant factor. On the brighter side, I do have a couple of good double seedlings that have been rust free for the last three years and so the hybridizing program will be switched to these few to see if they will throw rust free seedlings. These doubles not having any pollen whatsoever makes this program much longer than one normally has with the other Louisiana irises, but it won't take as long as it took to get the first color break."

Bud McSparrin, president of the Society for the Louisiana Irises, gives some cultural tips. "These great irises can be planted just about any time. However, they seem to do the best in this area when planted in September. They go dormant here during summer and start making new growth in early fall (Oct.) and continue growth through the winter and up until bloom in April. I won't attempt to recommend when they should be fertilized. I fertilize heavily with 8-8-8 or 12-12-12 at 6 to 8 week intervals from September to April here in Louisiana, but here they grow just about all winter."

On harvesting seeds, Bud reports, "I have found that if Louisiana iris seed is harvested while the pod is still green (about 60 days after pollination) and planted immediately (within 1 to 2 hours) that good germination is obtained within 2 to 4 months. I generally make my crosses around the middle of April, harvest the seed about June 15 and some seed usually germinates by Aug. or Sept. However it may require 6 to 12 months for complete germination. Some crosses seem to germinate much more quickly than others."

Ila Nunn has some suggestions of good varieties for hybridizers to use. "WHEELHORSE, LOUISE ARNY and PEGALETTA. Asked to give a favorite 10 varieties—among them are KATHERINE CORNAY, W. B. MacMILLAN, JOYCE, NEW OFFERING, MARIE CAILLET and FAENELIA, but there are so many more I could not narrow the choice to ten. In G. W. HOLLEYMAN there is a wonderful source for fine irises. Holleyman's QUEEN OF QUEENS is a great new cream, almost white."

Nematodes and Marigolds

Jack Cochran, Revere, Mass., comments on his feeling about Senator Everett Dirksen's favorite flower. "My mother, 30 miles from here, has irises terribly affected by borers. We were never bothered, except when we

brought hers here to grow. We didn't know why until recently. Being very fond of marigolds, we grow plantings of taller ones beside iris beds. We recently found out they are natural repellants for most grubs, wire worms, larvae and the like. This leads us to believe borers cannot survive, or the moth responsible for the larvae does not lay her eggs near marigolds. The beauty of it all is the marigolds will repel up to three feet away from the plant itself. This year we plan to scatter dwarf marigold seed right in the iris beds to see what will happen."

Edwin Rundlett suggests some reading material. "We have been hearing so much lately about the alarming effects of using products of the DDT family of pesticides, that I've been scanning the horizon for substitutes. In the '50's Dr. M. Oostenbrink of Wageningen, Holland, reported a decline in nematode population in soils in which marigolds (*Tagetes* species) had been grown.

"Back in 1962 I received letters from widely separated scientists both pro and con as to the effectiveness of these findings as an aid to gardeners. In the New York City area there seemed little interest. The July-August 1963 issue of *New Jersey Agriculture* stated, Perhaps the single most important problem in the development of nursery stock is the prevalence of plant-parasitic nematodes. These nematodes not only cause an actual loss in plant materials in reducing size and lowering survival, but also in the length of time it takes to produce a given plant size. Think what that means to growers of reblooming irises, not to mention other types.

"In spite of general denials by northern nurserymen, the parasitic nematodes (microscopic eelworms) are not confined to semi-tropical regions, but are found everywhere that susceptible plants are grown. Read Bulletin 795 of N.J. Agr. Experiment Station, New Brunswick, N.J. *Distribution of Stylet-Bearing Nematodes in the N.E. United States*. This pest is also guilty of transmitting plant diseases.

"Drs. Pirone, Dodge and Rickett (all of the N.Y. Botanical Garden) authoritatively state in *Diseases and Pests of Ornamental Plants* that the root-knot nematode and the meadow or lesion nematode are widely distributed and causes of root decay of many plants, including the iris.

"Bulletin 701, May 1969, of the Connecticut Agricultural Experiment Station, brings real hope of relief. The entire bulletin is devoted to the one subject, *Marigolds—A Biological Control of Meadow Nematodes in Gardens*. I can here quote only the concluding paragraph, but you can follow through.

'Meadow nematodes injure many plants around the home. Control of these nematodes results in better flowers and more fruit and vegetables from the garden. Chemical control of nematodes in a small garden or around a few established plants is generally impractical. Nematicides are not ordinarily available in the small amounts needed to treat a garden; equipment to apply them is designed for large areas; and most volatile nematicides injure plants that they touch. Growing of marigolds controls nematodes as long as three years. Rotating marigolds with plants injured by meadow nematodes provides both flowers and nematode control.'

"Let me add to this, the quality of garden marigolds, both French and African (actually American), has greatly improved in the last decade. Make the best possible use of them. They love the same sunny sites that

irises love, and poor soils do not discourage them.”

Cultural Problems Solved

All manner of hints on coping with all manner of problems come forth from the Reblooming Iris robins. In Lorenzo, Texas, Louise Herrington writes her ideas. “I believe shade is good for remontants unless it comes from shallow-rooting trees such as my Chinese elms. Rather than plant under such trees, I’d leave them in the sun and water them often and deeply, provided they had good drainage. One way to keep blossoms from being sand-blasted here is used by a friend with tall Arizona cypress and red cedar trees on the north, west and south of her iris plantings. Her blooms are not much damaged and are much lovelier than mine. The trees are quite close together, making a very compact wind barrier. Arizona cypress trees grow quite rapidly in our part of Texas.”

Paul Chenoworth, Cupertino, Calif., reports on a lady who sympathized with her roses and gave them lots of water in her Pasadena garden during the summer. “It seems the irises were included rather incidentally and, to her amazement, she had numerous fall blooms without summer feeding.”

Dr. Martin Rakow, Valley Stream, Long Island, N. Y., comments “I’ve found that moving irises around July 4th is dependable and will not disturb reblooming, when I do fertilize and water. You will note that this is usually about one month past bloom time here, so there is a rest period at that time.”

Bonnie Haney, Carrollton, Mo., reports on performance of some plants she didn’t get thinned in spring. “I see now that one must thin clumps every other year. For example, GOLD OF AUTUMN had bloomed a mass of big flowers each fall for three years. I did not replant or thin it and this year two short stalks only were produced. I won’t forget next year, you can bet.”

Anne Allen, Sykesville, Md., says that often instead of lifting the whole clump to divide, she leaves part in place and just removes those spent rhizomes from the middle. She finds much better bloom the following year.

From Ellen Crouch, Falls Church, Va., “Watch this year in your garden and notice which spring-bloomers increase early (late July, for example) and put up a good number of increase fans. These may be the ones which offer more promise as mates for rebloomers. Vigorous growth is necessary if an iris is going to bloom twice a year. Also, I favor taking the more attractive rebloomers which may rebloom only in warm climates and crossing them with the most dependable rebloomers.”

Johnny Skinner, Yorktown, Texas, discusses feeding and transplanting. “We fed ours in January and they have never looked better, or had so many buds. I find that this far south, if I transplant in late September, October or even November, the irises grow fine and bloom the following spring. I’ve tried moving them in May, but they have a bad time through our hot summers. The ones I order, of course, always come during the hot season, so we have to watch them closely. That can’t be helped for growers have times to ship. I planted three irises on the 16th of January this year, one bloomed April 10th at 43” tall. We entered it in the show. It got a ribbon!”

Paul Nott, Roseburg, Oregon, has wise words to share.

"I've had many remontant iris crosses produce some maiden bloom in the autumn, or at least a bloomstalk part way up before hard frost. This is only when I planted newly harvested seeds in a cool, shaded place (under the house is best so far for trays of cans or flats). Each time I've planted seeds I've used a different method with several variations to test what is the most efficient.

"The method I've found best is the one developed by the late Lloyd Austin. This is the method as nearly as I can recall it. Plant the newly harvested seeds, or place them in refrigerator between damp layers of soft, absorbent material for about 2 months. Make it easy to peek into so as to check for mold and any hint of germination (near the end of 6 weeks on).

"Prepare new open ground. Make holes one inch apart in straight lines (at proper depth and a little larger than the iris seeds). Austin used a board the length of the seed row and pounded large-headed nails one inch apart and let them stick out of the board the exact length to give proper planting depth. (A 2 x 2" is the easiest and lightest board to use for me). I make the beds 3 feet wide and up to 50 feet long (the length of sprinkler hose) with seed rows running crossways. I think Austin left only 1" between rows, but I like 2" better. Place a stick in the first and last holes in the row and you can easily find the ones in between. In a 3-foot row this allows for planting 35 seeds plus a stick at each end. If you have 31 seeds for a particular row, then place a small, rather long slender stick in hole number 32; then you will know 32 through 35 are vacant. No need to wonder later why nothing is germinating there.

"By all means put name tags at the end of each row and record in a notebook. If one or the other is lost, you can still know the pedigree. I use aluminum tags that can be written on with pen or pencil.

"It is easy to check germination percentages even after transplanting. Count the transplants, then the total number of seeds planted between the sticks. Percentage germination means little to me unless it is desperately low. I'm more interested in the percentage of high quality seedlings to the number of dreadful "dogs." (I'll never use LIMELIGHT with rebloomers again, etc.)

"I'll never use flats or tin cans again for planting seeds because it's too much trouble to keep them watered in our dry summers and falls, and I can't be sure of getting them transplanted at the best time for it. Nor will I plant seeds 15 to 20 in a group so that the seeds touch each other (reportedly aiding germination, but I couldn't see that it did). Too much damage is done in separating them for transplanting.

Seeds collected in August and planted at once in flats and tins gave germination in October. Our winters are mild enough to encourage them to grow some all winter. Even during our several brief cold spells in late December and January it very often is after midnight before the temperature drops much below freezing and thaws again shortly after daylight. So coldframes would be of little value.

Humidity is a probable factor in influencing rebloom. Low humidity seems to delay rebloom. In western Oregon we are so aware of low humidity because anytime humidity drops below 35% all logging operations must cease and a fire watchman must remain on duty. When fire hazard becomes critical, the bloomstalks of many iris varieties will sag or even

go limp. GUIDING STAR is the worst offender for this, so I've used it only for a pollen parent. With our record heat and drought this past summer, the governor closed the forests for a while. Rebloom was sparse and very late, with few notable exceptions. I suspect that low humidity in Arizona is the cause of so many snaky stalks on Virginia Mathews' irises in Wilcox. They sag by day and partially straighten at night during growth period of the stalks."

Preventing Is Half The Cure

Ellen Crouch cites another iris expert. "Molly Price, in *The Iris Book*, said she prevents soft rot by using Phizer's Agrimycin 100. She uses the highest recommended concentration, adds a trace of detergent, and drenches plants and surrounding soil. She starts early in spring and repeats in hot, humid weather. I was interested to learn that it is a combination of Streptomycin and Terramycin (used for control of fire blight and other bacterial diseases.)"

Ted Breth, Wichita, Ks., on the subject of leaf spot control. "I've finally given up and bought a weed burner. I am going to follow the good Dr. Wall and burn the loose leaves and the leaf spot spores on my irises in February. I have seen gardens where this was done and, even in the fall, I couldn't find very many leaf spots."

From another expert horticulturist, Jack Romine, Walnut Creek, Calif., "Irises in two different areas that have been mulched with wood chips (about 1") since last summer have all survived. No rot, no setback, and very little spotted foliage. My theory is that the mulch soaks up even heavy rain and prevents splashing of the soil onto the foliage. Last year the same two rows of irises were rather heavily spotted at this stage of development, early in March."

Charles Applegate, Perrysville, Ohio, "I've been using Terrachlor with rather good results this summer. I have a little leaf spot but nothing to compare with last summer. I'll start earlier next year and use it more often. It is said to help prevent soft rot, so when I spray I apply enough so some will run down over the ground and around the rhizomes. For such a wet summer, I'm pleased with the amount of control of both leaf spot and soft rot."

Delia Munn, Virginia Beach, Va., says "Mine did not get sprayed last fall or spring, but I saw very little leaf spot. I think last year's treatment at planting time paid off. Shortly after I began transplanting, I dipped each fan in a mixture of Phalton and Sevin. I held the rhizome and just swished the fan well in the large bucket of solution just before planting, allowing it to dry off before planting it."

Save Those Seeds!

Mrs. George Nelson, Arlington, Calif., reports a good way to do it. "Because of an early move, I had to cut 60 or 70 seed stalks that were well formed but many weeks away from ripening. My husband built a frame about 18" by 48" and 45" tall. It has the 4 corner posts connected by 2" slats at top and about 15" from the base. We set it against a fence over freshly spaded soil and heeled in the stalks with seed pods on them. It is in a partially shaded spot; if the weather should get very sunny and hot I can put shade over the top of the frame. My husband calls it my seed corral."



Dr. Clarke Cosgrove presenting third Eric Nies Award to Walker Ferguson at May 4th, 1969 meeting of San Diego-Imperial Counties Iris Society, won for spuria iris DAWN CANDLE.

(Photo courtesy Mrs. Walter Bonker)

LABORATORY CULTURE OF IRIS SEEDS AND THEIR EMBRYOS

Bruce B. Farrington

Laboratory germination and growth of iris seeds and their embryos on laboratory culture media are being carried on by a number of investigators, from the university-level researcher to the kitchen-sink enthusiast. The usual reasons given are faster and more complete germination of seed, more rapid growth of seedlings and better yield of viable and vigorous plants. While most iris hybridizers do not have the inclination nor time to fuss with laboratory methods these sometimes are the only way to germinate wide crosses. This is particularly true of aril species and arilbred hybrids.

In most cases, plate culture of seed is much faster and more complete than outdoor germination. In many aril crosses, the seed endosperm (the principal ingredient is starch) is deficient and growth of the seed does not occur. In this case embryo culture is resorted to in order to provide the necessary energy and nutrients.

But laboratory culture of seeds and embryos is fascinating in itself, as the various phases of germination and growth can be watched day-by-day and culture media and environmental conditions improved. In addition, many of the laboratory findings can be applied to growth of seeds and plants in the garden.

INORGANIC NUTRIENTS. The present work is concerned primarily

with the determination of the optimum concentrations of the metallic and non-metallic ions and sugars necessary for seed and embryo germination and growth, and with the protection of the growing plant from fungi.

Starting with the formula F-1 (Ref. 1), which I found suitable for seed culture, and the KnudsonBurgeff formula (Ref. 2) for embryo culture, the optimum concentration of each ion was determined by varying it over a range, while keeping the concentration of all other ions constant. For most of the experiments, tall bearded iris seeds and embryos were used, but the results were always checked with onco hybrids, regelia hybrids and spurias. The ions examined were NH_4 , K, Ca, Mg, NO_3 and H_2PO_4 . Advantage was taken of the neutral growth-promoting characteristic of sodium ion (Na) and the insensitivity of the seeds to rather large variations of sulfate ion, (SO_4) above a necessary minimum concentration. For example, optimum concentration of nitrate ion (NO_3) was found by using sodium nitrate instead of potassium or calcium nitrates, while keeping the concentrations of all other necessary ions constant. Ammonium ion (NH_4) was then determined by using ammonium nitrate for the correct NO_3 concentration plus additional (NH_4) from ammonium sulfate. In general, the optimum ion concentrations were not far from those in the Knudson-Burgeff formula, with certain exceptions. Ca in the latter is much too high and tends to precipitate anions such as basic phosphate (HPO_4) and sulfate (SO_4). On the other hand, NH_4 is much too low for good root formation (especially lateral branching). In my original seed culture formula (Ref. 1) acid phosphate ion (H_2PO_4) is too high and NH_4 too low. Mg, concentration in the K-B formula was found to be about optimum. Ferrous and manganous ions were not investigated in detail, but have been included in the formulas (see later) because of their presence in the K-B and Shockey formulas (Ref. 2). A few experiments indicated their inclusion was of doubtful value. All sulfate ion needs are met by the sulfate salts added.

The optimum ion concentrations were combined in a new formula F-2 which is suitable for seed culture by addition of a small portion of fungicide (Formula F-3) or for embryo culture by the addition of agar and sugar(s). (Formulas F-4 and F-5). These formulas appear below. It has been gratifying to find, as suspected, that there is little essential difference in the inorganic requirements for seed and embryo culture.

ORGANIC NUTRIENTS. In most tall bearded iris seeds the endosperm is satisfactory for normal germination and growth, the starch and the starch-hydrolyzing system being intact and meeting all requirements of the embryo for energy and carbon. With normal seeds, plate culture is the easiest and most rapid method of laboratory culture. This is true of many arilbred and spuria seeds. In some cases, such as arils and arilbreds from wide crosses, the endosperm is deficient and embryo culture must be used. In embryo culture of TB seeds and others (e.g. orchid seeds) sucrose has been found to be a satisfactory replacement for the starch of the endosperm. But some aril seeds (regelias) have difficulty in making use of sucrose, as Shockey (Ref. 3) has pointed out. Shockey recommended a four-way mixture of carbohydrates (sucrose, dextrose, maltose and dextrin.) My experiments confirm the value of dextrose for regelia embryo culture, but I have had no success with maltose or dextrin. Mixtures of

sucrose and dextrose have proved very effective for regelias, the optimum concentrations being about 15 g. sucrose and 5 g. dextrose per liter of nutrient. Surprisingly, oncos and spurias also do very well on this mixture of sugars, while TBs prefer 20 g. sucrose without any dextrose. Complete formulas for seed and embryo culture are given in Table I.

TABLE I
FORMULAS FOR SEED AND EMBRYO CULTURE
FORMULA F-2 INORGANIC SALTS

		gm/l	tsp/qt
ammonium nitrate	NH ₄ NO ₃	.500	1/8
calcium nitrate, granular	Ca(NO ₃) ₂ · 4H ₂ O	.160	1/32
potassium acid phosphate	KH ₂ PO ₄	.640	1/8
ammonium sulfate	(NH ₄) ₂ SO ₄	.500	1/8
magnesium sulfate	MgSO ₄ · 7H ₂ O	.140	1/32
ferrous sulfate	FeSO ₄ · 7H ₂ O	.020	small pinch
manganous sulfate, powd.	MnSO ₄ · H ₂ O	.020	small pinch
water to make		1 liter	1 quart

(tap water is perfectly satisfactory, except when heavily chlorinated)

SEED CULTURE — FORMULA F-3

Formula F-2 plus		gm/l	tsp/qt
	Ortho Phaltan(75%)	.030	small pinch

EMBRYO CULTURE

For tall bearded irises — **FORMULA F-4**

Formula F-2 plus		gm/l	tsp/qt
	sucrose	20.0	6 3/4
	*agar, flake	216	10

For aril, arilbred and spuria irises — **FORMULA F-5**

Formula F-2 plus		gm/l	tsp/qt
	sucrose	15.0	5
	**agar, flake	5.0	2
	dextrose	2.6	10
	**Difco Bacto Agar can be added if desired, but	2.1	1

flake agar is available in drug stores

Note: Fractional part of a tsp., less than ¼, can be measured with sufficient accuracy by placing ¼ tsp. of the material in the palm of one hand, partly closing the hand to elongate the sample in the crease, removing ½ of the sample, and dividing the remainder as many times as necessary to get the proper fraction.

GATHERING AND STORING SEEDS

Seed pods should be cut off at the first sign of cracking and the seeds dried indoors as quickly as possible in shallow containers away from dust and mold spores; this usually takes about a week. Seeds can be cultured green, but it is not always convenient to do this.

As soon as the seeds are dry and shriveled, they should be rolled in a good, powdered fungicide, such as Semesan or Ortho Plaltan (75%). Excess fungicide is removed and the seeds stored in dry containers (Small manilla envelopes with metal fasteners are satisfactory and pack well.) Seeds will remain viable for years when preserved in this way, and endless difficulty with molds avoided when they are cultured. This is one of the best trouble preventives I know, and one neglected by most hybridizers.

SEED CULTURE

This is best done in plastic sandwich boxes or glass Petri dishes as described previously (Ref. 1). Seed culture is only satisfactory when the endosperm is healthy and complete. If seeds are not plump, it is better not to take a chance on plate culture but to resort to embryo culture. In plate culture, however, 20 to 30 seeds can be germinated per plate, and the procedure is simpler and less time-consuming than embryo culture.

The dried seeds are soaked in water for 48 hours (72 hours if the seeds are very old and dry). After washing twice, the seed coat is peeled from the embryo half of the seed, making sure that the endosperm is exposed in the area of the micropyle. The tiny waterproof cap covering the end of the embryo is then shaved off to expose the embryo. Shaved seeds are then placed on 4-ply paper toweling in the sandwich boxes and Formula F-3 nutrient is added. Paper pads should be wet, but show no excess solution. The old solution should be replaced with fresh nutrient about once a week, or when pads show a tendency to dry out. Seeds that do not germinate after two weeks are reshaved; if they do not germinate at once they probably are not viable.

After the second leaf is well developed, seedlings are pricked out, with seeds attached and planted in sterilized soil contained in deep flats, cans, pots, etc.

EMBRYO CULTURE

The dried seeds are soaked in water for 24 hours, in contrast to 48 hours for seed culture. I have found that the shorter soaking time allows much better control of mold spores in seeds that have not been protected in storage with fungicide. Seeds then are peeled and shaved as under "Seed Culture." After shaving, the seeds are allowed to soak an additional three hours to swell the embryos. The embryos swell more rapidly than the endosperm, and the internal pressure tends to squeeze out the embryos. Although this action is to be avoided in seed culture, it is made use of in embryo culture. I have found that gentle but firm pressure on the seed below the embryo with a pair of needlenose pliers forces out the embryo, which then can be picked up with a dissecting needle, sterilized and planted in an agar tube. Very little, if any, damage is done to the embryo by this procedure; any tearing taking place is confined to the tail of the embryo and this does not affect the germination or growth of the embryo. This new technique avoids the dangerous excision of the embryo with a razor-sharp scalpel.

The embryos then are sterilized in a dilute solution of Merthiolate, as described later in the "Check List" and then planted in agar tubes.

Agar tubes for embryo culture are prepared by adding Formulas F-4 and F-5 to previously sterilized and cotton-stoppered test tubes to about one-third of the height of the latter. Tubes then are twice resterilized in boiling water before they are suitable for use. Details of these procedures are given in the "Check List."

Seedlings in the agar tubes are ready for pricking out when the third leaf is one inch high.

PRICKING OUT SEEDLINGS

Seedlings from seed and embryo culture are pricked out in fairly deep (at least five inches), loose soil which has been completely sterilized. I

have had no trouble with damping-off of seedlings since heat-sterilizing the soil. Soil is heated in pans at 350F for one hour. Almost any container is satisfactory for pricking out; I have used deep flats, pots, cans, etc., but prefer the flats because they accommodate up to 100 seedlings and are easily moved about. Almost any soil is satisfactory provided it is loose and drains well. Seedlings are fertilized on planting, and once a week thereafter, either with Formula F-2 or Hyponex.

GARDEN PLANTING. Seedlings from seed and embryo culture can be removed from flats, etc., when they are six to eight inches high and growing vigorously, and planted in garden beds. At this stage it is best to wait until all danger from frost is over.

CHECK LIST FOR SEED AND EMBRYO CULTURE

Preliminary Seed Preparation.

1. Harvest seed pods when they first begin to split.
2. Dry as quickly as possible away from dust and mold spores.
3. Roll in a fungicide such as Semesan, Ortho Phalton (75%), etc.
4. Store in dry envelopes or other containers.

Seed Culture.

1. Soak seeds in water for 48 hours; if very old and dry, soak for 72 hours.

2. Wash seeds twice with water to remove most of the fungicide.

3. Remove about half of the outer seed coating at the end of the embryo.

4. Shave off the tiny waterproof cap covering the end of the embryo with a razor blade split lengthwise. The circular cross section of the embryo should show as a small white spot.

5. Wash sandwich boxes or other closable containers with detergent. Prepare paper pads by cutting paper toweling to size and shape of sandwich box, leaving about 3/8" margin. Wash 4-ply paper pads twice in hot water, drain and place in boxes.

6. Place seeds on the paper pads and cover with Formula F-3, making sure that air pockets under the paper are eliminated. Remove excess solution by tipping one corner of the box and sucking off solution with a hand syringe until only about a teaspoonful remains. Nutrient should be replaced about once a week, or sooner if the pads tend to dry out.

7. Store plates in a warm place away from direct sunlight until the second leaf is well developed.

8. Prick out seedlings in deep flats or other containers filled with sterilized, loose soil, making sure that the seeds still are attached to the seedlings. Soil can be sterilized by heating in pans in the oven at 350F for one hour.

9. Fertilize with Formula F-3 or Hyponex on pricking out, and once a week until seedlings are 6 to 8 inches high.

10. Plant out in garden after all danger of frost is over.

Embryo culture.

1. Soak seeds in water for 24 hours. Longer soaking makes it more difficult to kill mold spores if these are present within the seeds. Remove half the outer seed coating and shave off the embryo cap as in steps 3 and 4 under "Seed Culture."

2. Resoak the shaved seeds in water for three hours. The embryo swells much faster than the endosperm, and can be squeezed out.

3. Hold and steady the seed between the thumb and the forefinger of

the left hand, and with a pair of needle-nose pliers, gently but firmly squeeze the embryo from the endosperm. This will take a little practice, but by alternately squeezing and releasing, the embryo can readily be worked out. I have found that this method of removing embryos is much faster and less hazardous than excising the embryos with a razor-sharp scalpel.

4. The embryos then are sterilized by placing them in a dry area of a small plastic box cover next to a small pool of disinfectant made by diluting 1 ml of Tincture of Merthiolate in 50 ml water. The concentration of active mercury salt in the dilute solution is 10 parts per million. Push the embryos into the pool of disinfectant with a dissecting needle, and allow them to soak exactly five minutes. Make sure that the embryos are totally immersed and do not float on the surface. After five minutes, push the embryos out of the solution.

5. Plant in previously prepared agar tubes with the aid of a dissecting needle.

6. Agar tubes are prepared as follows: Pyrex No. 9800 test tubes are washed with detergent, rinsed thoroughly and drained. They then are sterilized for an hour in the oven at 350F. The oven temperature is then reduced to 275F. and cotton stoppers inserted. The tubes are kept at this temperature for 1/2 hour to sterilize the cotton inside of the tubes. To cold Formula F-3 contained in a heating flask (An Erlenmyer 500 ml is convenient) add the required amounts of agar and sugar(s) to obtain formulas F-4 or F-5. Heat to boiling to dissolve the agar, cool until the solution can be poured, and fill test tubes about 1/3 full (about 8 ml). Filled tubes are sterilized two days in succession (24 hours apart) in boiling water for 12 minutes each. Water level should not be over 1/2 inch above the level of the agar in the tubes. The second heating kills all mold spores germinating after the first heating. I find it convenient to tie the tubes in bundles of seven, with garden tie wire. After cooling, the tubes can be stored in wire baskets.

7. After planting the embryos in the culture tubes, the latter are placed in the dark until the embryos arch over. This is due to the effect of gravity. For most embryos this takes about a week, although spurias usually take about two weeks. I have found by experiment that if embryos are exposed to light before arching takes place, chlorophyll forms in the wrong parts of the embryo. The result is a marked increase in deformed and stunted seedlings. The number of plantable seedlings is also lowered considerably.

8. Remove seedlings to diffused light in a warm place.

9. Prick out after the third leaf is one inch high. The rest of the procedure is the same as for "Seed Culture."

ACKNOWLEDGEMENT: My sincere thanks to those who have helped in this work by supplying seeds: to Tom Wilkes for oncocyclus and oncobred seeds; to Keith Keppel for regelia seeds; and to Walker Ferguson for spuria seeds.

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JUBILEE IN NYC — 1970

**AIS GOLDEN
ANNIVERSARY
CONVENTION**

**HEADQUARTERS: Statler Hilton Hotel, New
York City**

DATES: Sat., May 30 through Tues., June 2

**TOURS TO SELECTED GARDENS
SEE OUR BEAUTIFUL SUBURBS**

Staten Island

Long Island

Westchester County

New Jersey and Connecticut

SEE FAMOUS

Presby Gardens in Montclair, N. J.
Planting Fields Aboretum—the former
Coe Estate—in Oyster Bay,
N. Y.

YOUR CHANCE TO SEE NYC

**AND ITS ENTERTAINMENT AND
SHOPPING AREAS**

ALL CLOSE TO HEADQUARTERS HOTEL

**SOCIETY AND DIVISION MEETINGS
OTHER PROGRAMS OF INTEREST
SPECIAL ANNIVERSARY BANQUET
FINAL EVENING**

Registration and hotel information in *January Bulletin*

JUBILEE IN NYC --- 1970

William H. Peck

An early 1969 bloom season in New York and an extremely late one in Milwaukee infected your 1970 Convention Committee last June with a bad case of indecision after we supposedly had settled that great problem besetting each group in turn—what will be the dates of our convention? Does the everpresent chance of a late season mean we should meet well after our average peak in order to avoid another bud convention? The originally announced dates, usually quite late for us, were the product of an affirmative outlook on this question. But then came our early year of 1969 when we saw most of our gardens on their last legs (stalks) and pretty miserable looking by the announced June dates. A poll of gardeners was indicated and the answer came through loud and clear—stick closer to the averages and we will have the best chance of having some good gardens, be the season late or early. And so we confirm the notice of change of dates that was slipped into the July Bulletin at the last minute by our editor. Jubilee in NYC will hold sway from May 30 (Memorial Day) through June 2.

Probably most convention goers are made happiest by seeing TB beds at peak bloom. Given any sort of luck in avoiding either seasonal extreme, we feel that these dates will give you the best chance of seeing good TB bloom, hopefully in all our gardens. Should the swing ride higher or lower, we have a fairly wide geographical variation in our plantings, seasonwise, so chances are still good of having some gardens that will be near peak.

Whatever happens we can prophesy that you will have a good time. Like all conventions this one will offer the joy of meeting and spending time with iris friends, old and new, plus many iris activities in addition to the garden tours. And then there is the special attraction of New York City itself.

Our hotel will be in midtown New York City with a variety of sources of entertainment close by, easily reached by foot, bus, subway and taxi. All subway lines can be reached through hotel basement entrances without ever going outdoors, making the whole city reachable for a small fare. And we will have people bursting to tell you how to reach this or that place by this or that route, all primed to reassure those who, never having taken a subway ride, are not quite sure they would ever see daylight again once down below. T'aint so. Try it and see how easy and cheap it is to get around. Or try our city buses—or taxis if you prefer.

Macys and Gimbels are each only about one block away for the shoppers, the Empire State Building only two. Times Square and its theatre district are only nine blocks north (one stop on the 7th Ave. IRT subway line). At varying distances, but still easily reached, will be Radio City, the United Nations, the Lincoln Center for the Performing Arts offering music, ballet and theatre. And either our inimitable Mets or our Yankees (with their memories of past glories), will likely be in town, perhaps playing your own hometown team. Restaurants of every nationality and type. Movies. And many other delights. That's New York City. Come and see.

Long Island Gardens

Phyllis Gay

The Long Island gardens are being readied for the 1970 Golden Anniversary Convention tour. The visit to these Long Island gardens is now scheduled for June 1, when our weather usually is warm and pleasant. With any luck as to weather and season, you should be rewarded with fine iris displays in beautiful settings. The four gardens to be visited are all on the north shore of the island, conveniently located for economy of time in going from garden to garden. Fine collections of guest irises from hybridizers from all over the country, and some from abroad, have been planted in all of them.

The Planting Fields Arboretum, a real show place, is located near the village of Oyster Bay, in a rolling, wooded countryside. Formerly it was the country estate of the late William Robertson Coe, a native of England, who, while a successful businessman, was at the same time deeply interested in horticulture. He purchased the property in 1913, retaining the name Planting Fields, a reference to the history of these fertile grounds, which were cleared over 300 years before by the Matinecock Indians for growing their corn, grains and vegetables. The English settlers of the early 1700's also farmed it.



Formal Sunken Area, Planting Fields Arboretum
(Photo by Gottscho-Schleisner, Inc.)



Entrance to Synoptic Arboretum Planting Fields Arboretum
(*Photo by Gottscho-Schleisner, Inc.*)

For over forty years after his purchase Mr. Coe collected plants from many parts of the world. Rhododendrons and azaleas were a specialty, and expect that some of his over 700 species and varieties will be in bloom during the tour. This is considered one of the finest collections in the east. Our visitors will have a chance to enjoy these as well as the many shaded paths, the expansive rolling lawns with their huge, well-shaped trees, these being spaced far enough apart to permit full development. You will find many specimens to “ooh and ah” over, such as a Sargent weeping hemlock fourteen feet tall and forty feet in spread. In a recent listing of the largest Long Island trees of the various species, eighteen Planting Fields trees were stated to be the largest of their kind on the island.

Another attraction is the synoptic shrub garden, which has been developed since the transfer to the State. It has been designed to present a comprehensive selection of desirable ornamental shrubs, a place where homeowners as well as those in horticultural businesses and professions can see and become acquainted with the very best shrubs that can be recommended for Long Island. An arrangement alphabetically by genera simplifies the task of locating any given plant, while at the same time it has not prevented the development of a garden with aesthetic appeal and interesting design, containing over 400 different shrubs that are clearly labeled and identified.

The main house was built in 1919 in the Elizabethan-Tudor style. It now is used, as are the other buildings on the grounds, as a part of the Planting Fields campus of the State University of New York, the estate having been presented by Mr. Coe in 1949 to the people of New York State. The Arboretum is under the administrative control of the State University Agricultural and Technical Institute of nearby Farmingdale. The Planting Fields Foundation administers endowment funds which Mr. Coe established to provide for improvement and further development of the arboretum. Thus the horticultural show place which Mr. Coe spent a lifetime developing is being preserved for all of us to enjoy and profit from.

During the planting of the gardens to be visited on the Long Island tour, Mr. Gordon E. Jones, the Arboretum Director, generously offered space in the formal garden area. There several members of the Three Islands Area (Long, Manhattan and Staten) of the Empire State Iris Society (your host for the convention) planted and maintained six iris beds, each seven by fifty feet. Two of these beds are planted with the One Hundred Symposium Irises of 1967. The other four beds contain a quota of convention guest irises. Much effort of our Area members has gone into this project. Very fine bloom in 1969 bodes well for a fine display in 1970.

A visit to a commercial nursery, a most unusual one, will offer variety on the tour. It will be the Martin Viette Nursery, located on Route 25A in East Norwich, now managed by Martin's very capable and learned son, Andre. He is a Cornell graduate, and holds many other degrees, and is a very informative and fluent speaker. You will come away with the knowledge of many innovations in this garden world. The nursery has one of the largest and finest collections of perennials, including peonies, poppies, daylilies and our beloved irises, all in great variety. The tree and shrub range is wide, comprising both flowering and foliage varieties, as well as choice evergreens. Here also is a wide assortment of rock garden and shade tolerant plants.

In addition to engaging with success in the business side of horticulture, Andre participates in the activities of various horticultural societies. On the occasion of our tour he will welcome all as an active and fellow member of the American Iris Society. In keeping with his love for all perennials, he maintains large display beds bordering the entrance roadway, in which in proper season may be seen the latest and best varieties of many types. In addition to the beds allocated to his convention guest irises, there will be beds of other perennials hopefully in bloom at the time of our tour, such as peonies and poppies.

A great treat is in store for all at the home of our Region 2 RVP, Harry Kuesel, in Greenvale. He also is president of the Empire State Iris Society. The contemporary home of Eleanor and Harry Kuesel is situated in a valley behind the headland overlooking Hempstead Harbor of Long Island Sound. The grounds formerly were part of the Lewis and Valentine Nurseries, well known for years in these parts and still operating nearby on a reduced scale. As a result one finds fascinating things growing here and there, parts of former nursery rows. A feature is a double row of Japanese maples that separates the front garden from the display beds in the rear. More than a dozen flowering crabapples in pink, red and white

form a lovely background, and form a fine cloud cover for the dwarf iris beds. Later blooming doubles are an excellent feature during tall bearded season. A rhododendron path through the woods is a delight, with something in bloom from April 15 through mid-June.

Harry's interest in irises is of long standing. Both his former home in nearby Sea Cliff and his present one in Greenvale have been well known to neighbors, and to irisarians within a large radius, for the plantings of many well-grown, well-chosen iris varieties. Harry's has always been the place to go to see the latest introductions. Now with convention guests added a visit will be even more of a treat. He is known for his interest in all types of irises, and his willingness to try anything once, even the temperamental ones with the extra work they involve. His median iris collection has been his specialty. We will enjoy seeing his many border irises, and should there be a late season, his intermediates and arils. Only recently he finished a term as president of the Median Iris Society.

Over in Oyster Bay, we will stop at the home of Bill Peck, your convention chairman. You will be enchanted by the old colonial house set on rolling terrain. In 1948 Polly and Bill Peck purchased their five acres with a rundown, basically colonial house which has been altered extensively over the years. Parts of it date back to 1700. Through the years they have restored and added to it, trying to preserve a few colonial features, while at the same time making it large enough for a growing family and comfortable for modern living.

The grounds are part cleared, part wooded, offering a variety of situations for flower beds, rock gardens, wild flowers, trees, shrubs and a frog pond. The Pecks are obviously collectors at heart, and have added to the many natives that grow in the area numerous varieties of trees and shrubs purchased over the years. Many should be in bloom during the tour.

While Polly and Bill work together gardening and landscaping, each has personal specialties, and as Bill puts it, "Irises are my thing." The guest irises have been planted in curved beds forming concentric arcs centered on garden steps leading down the slope from the house. The wide paths between the rows of beds as well as several cross paths, designed to increase mobility during our visit, have been planted with zoysia grass. Meyer zoysia has been used for most of the area, but in some spots you will find the Emerald variety. The zoysia forms a tough but cushiony carpet, very even in color and texture, and serves very well as a setting for the beds.

Bill has done considerable experimenting in ways of reducing the chores which gardening involves us in. One of these is his system of hay mulch, which will interest those of our visitors who have not tried it. For him it has proven successful in the iris beds, as well as for other things he grows, special benefit being saving of weeding time and making possible plantings on slopes and banks, solving the erosion problem.

We on Long Island are looking forward to greeting and making iris friends from all parts of this wonderful land of ours. Hope to see you!

NEW YORK 1970

Iris Borer and Its Control

Updated Reprint (1969) of Circular 202, revised February, 1966.
The Connecticut Agricultural Experiment Station.

John C. Schread

The iris borer *Macronoctua onusta* Grote is one of the many insects which fluctuate yearly in abundance. It is a serious pest of German and Japanese iris and also infests the native blue flag, *Iris versicolor*, the German lily and the blackberry lily, *Belameanda chinensis* (1).

The habits of the pest account for apparently unpredictable damage. Since the insects spend most of their larval life as borers they cannot be seen unless the plants are thoroughly examined. Thus the borers usually go unnoticed until serious damage is done, and they seem to destroy a bed of iris almost as soon as their presence is recognized. One of the first indications of borer infestation may be seen in mid-summer when leaves appear wilted, discolored, and partly dead.

Character of Injury

In early spring injury is caused by the larvae boring in the leaves. As the borers grow they work downward through the sheaves to the crowns and rhizomes. Seriously injured leaves turn brown and die, and the rhizomes are hollowed out, resulting in partial or complete loss of the root stock. In addition to the direct injury caused by the borers a bacterium is introduced into the damaged crowns and rhizomes causing an ill-smelling soft rot.

Description, Life History and Habits

The adult iris borer is a moth with a wing spread of about 1½ to 2 inches. The forewings are dark purplish brown with minor color markings. The hind wings are mostly yellowish brown. Moths begin to

emerge in late summer, usually during early September. Adult flight continues into October and sometimes later when the fall season is mild. They are secretive in habit, fly only at night, and seldom fly far. Hence, the adults are rarely seen.

The elaborately sculptured eggs are at first creamy white with a slight greenish tinge. They soon turn pink and finally become distinctly lavender in color. They are noticeably flattened at the top and bottom and rounded at the edges, with shallow ribs which are most conspicuous on sides of the eggs.

Eggs are laid during September and October and occasionally in early November. Confined in the laboratory a single female moth may deposit more than 1000 eggs. They are seldom laid singly, but occur most often in groups of 100 or more (3). In natural surroundings overwintering egg deposition takes place on roughened or crinkled surfaces of the oldest bleached and twisted iris leaves or on other plant material nearby.

An examination of 150 leaves (averaging 19 inches in length) taken from plants in a three-foot iris bed indicated that most of the eggs were laid in folds in the leaves or in crevices over which the edge of the leaf had curled or folded. The eggs occurred singly or in rows of from three to five together. Location of the eggs on the leaves varied considerably. Most of them were laid between 8 and 14 inches and some 1 to 2 inches beyond the point of union of leaf and rhizome. Eggs were not found on green leaves nor

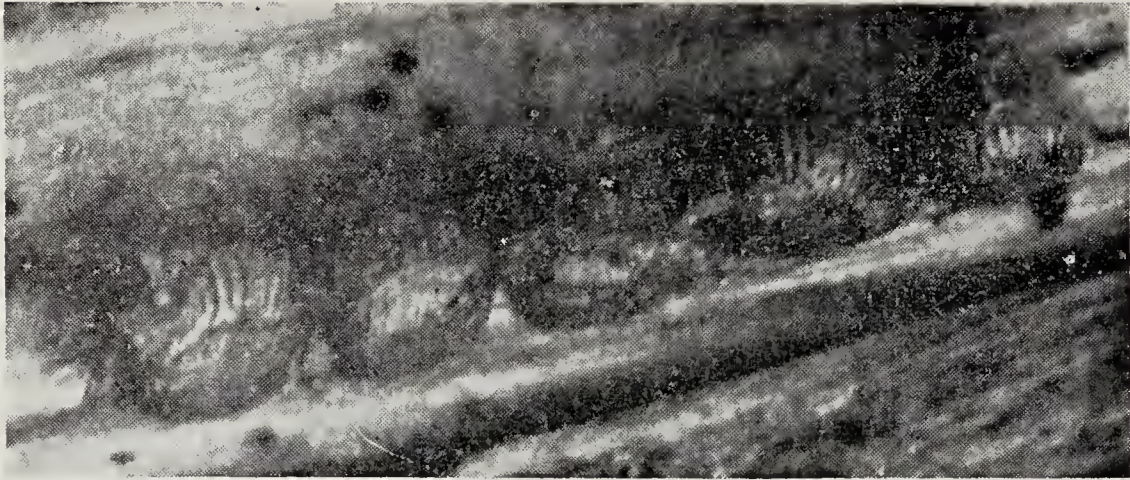


Figure 1. Sculptured eggs are laid in folds and crevices of dried leaves.

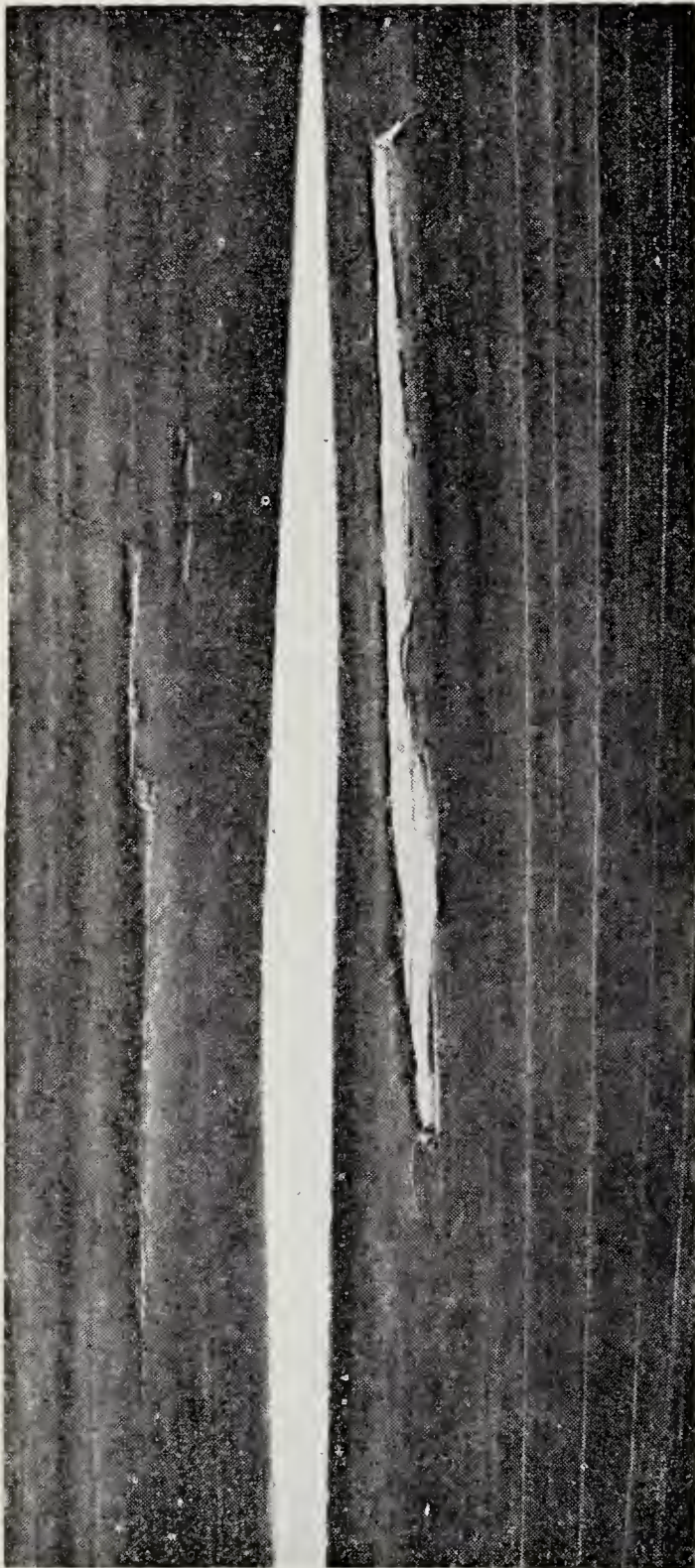


Figure 2. Water-soaked, ragged slits show where the young larvae have fed in iris leaves.

on leaves that were turning yellow or brown and had not dried out completely.

Eggs hatch in April or early May of the following spring. (April 10, 1968). At first the young larvae wander restlessly over the foliage. They chew small holes in the surface of the leaves and feed on the soft inner tissue. These wounds bleed, causing deposits of sap to accumulate on the outside of the leaf at the point of injury. The larvae then mine for a while before working down into the unsheathing lower areas of the foliage. Narrow, shredded, water-soaked slits frequently appear where the external feeding and mines have injured the leaves. In addition ragged marginal leaf injury occurs. This is most noticeable at the tender edges of the new leaves where they are protected by the sheaths. Hence, this type of injury is not conspicuous unless the sheaths are opened or the leaves removed.



Figure 3. Adult of the iris borer, life size.

As the larvae grow they produce quantities of wet slimy excrement in which bacteria and fungi develop causing a characteristic objectionable odor (2).

Larvae are about one-half grown when they reach the roots of the plants. They may feed along the edge or on the underside of a rhizome. Quite often the inside of a rhizome is devoured completely leaving a collapsible shell and dead plant. Larvae may migrate to several rhizomes before pupating, injuring all more or less seriously.

Full-grown borers taken from infested rhizomes in early August had reached maturity during the latter part of July. They were smooth, plump, and cylindrical, flesh-colored to deep pink with chestnut brown heads. Average length was $1\frac{3}{4}$ inches. Pupae were dark chestnut brown to almost black in color and shiny. All pupae occurred in the soil outside of the injured rhizomes. There is one generation of iris borers a year.

Parasites

Two parasites of the iris borer have been reared during the course of the work here. A single specimen of a wasp parasite of the genus *Amblyteles* emerged from a pupa. Several specimens of the Tachinid fly *Lydella thompsoni* Herting were recovered. These were identified by C. W. Sabrosky of the U.S.D.A., Beltsville, Maryland. This is the first time this parasite has been reported from the iris borer.

General Control Measures

An important cultural practice has been to clean up and burn all rubbish and old plant material before the eggs hatch in early spring. The iris plants may be burned over after the litter has been raised and dried out; however, some injury to the rhizomes may result.

The young larvae may be crushed by pressing the infested areas of the shredded and water-soaked parts of the leaves between the thumb and forefinger.



Larvae of the iris borer feeding on a rhizome.

In cases of heavy infestation it was thought best to dig up and destroy the affected rhizomes. On the other hand, when infestation was light the rhizomes were removed from the soil and the borers destroyed with a piece of wire forced into the cavities made by them. In addition the soil was sifted by hand for free-moving larvae and pupae. The healthy rhizomes were then replanted. It was also advisable to thin iris every few years even though no borer infestation appeared to be present. By so doing, healthy plants were assured continually.

Control With Insecticides

The fact that young larvae feed on leaves and migrate to the roots is the basis for control using insecticides. Thorough treatment of the plants during this period of development has prevented infestation in roots and rhizomes. Arsenate of lead, nicotine sulfate, derris, and pyrethrum have been used with indifferent success.

Experiments in Control of Iris

Borer Without Dusts or Sprays

A large bed of heavily infested bearded iris plants was divided into sixteen 8-foot plots in April, 1965. Twelve of the plots were dusted and four were untreated checks.

One of the plots in each series was dusted only on April 19, another April 19 and 27, a third April 19 and 27 and May 4 and a fourth also on May 14. The materials used were endosulfan (Thiodan®) 3 per cent dust, and malathion 4 per cent dust.

Data on the infestation were obtained on August 23 by examining both soil and plants from a 4-square foot area in the center of each plant. In the four untreated plots, there were 52 larvae and 19 pupae of the iris borer in the areas sampled. No larvae or pupae were found in the

plots dusted with endosulfan and only one larva and one pupa in the plots dusted with malathion.

More recently 9 foot iris beds were sprayed on April 5, 1968 with Sevin® 42 percent and Dylox® 40 percent emulsions at the rate of 2 pints in 100 gallons of water. Four ounces of Aqua-Gro® wetting agent was added to each treatment. The treatments were repeated on April 22. Control data were obtained on August 28 by examining iris plants and adjacent soil in both the sprayed and unsprayed iris beds. No larvae nor pupae were found in the areas sprayed with Sevin® and Dylox®. There were, however, 5 live larvae and 3 pupae in 10 plants in one unsprayed check area.

Control with Soil Treatment

On May 5, 1968, Di-Syston® 2 percent granules were applied to six, 20 sq. ft. beds of borer-infested iris plants at the rate of 20 and 40 ounces of formulation per bed. There was no watering of the treatments. Subsequent rainfall provided the necessary penetration of the systemic to the roots of the iris plants. Control of the borers assayed on August 30, in a total of 20 sq. ft. per treatment and checks indicated 20 live larvae and pupae in the areas treated with 20 ounces of Di-Syston®, 14 in the 40 ounce areas and 53 in the untreated areas.

Discussion

It is evident that endosulfan and malathion dusts were effective in controlling iris borer in 1965 experiments. Sprays of Sevin® and Dylox®, applied twice in April, 1968, indicated complete control of the iris pest. A single soil application of Di-Syston granules provided good control of borers; however, the systemic, used at the rates indicated, was not as completely effective as dust and spray applications of other

insecticides.

It is also obvious that borers can be killed by foliar treatments only when they are young and before they enter the rhizomes where they are protected from this type of pesticide application. Systemic soil treatments will provide fair control of

borers when they are in the rhizomes and may be used alone or as a supplement to foliar treatments. It is suggested that soil treatments be applied during early April and dusts or sprays from mid-April through early May.

1. Bird, Henry, 1915. Boring Noctuid Larvae. N.Y. Ent. Soc. Jour. 10:214-216.
2. Breakey, E. A. 1929. Notes on the Natural Enemies of the Iris Borer. *Macronoctua onusta* Grote. Ann. Ent. Soc. Amer. Vol. 22:459-464.
3. Griswold, Grace H. 1934. Oviposition of the Columbine Borer and the Iris Borer. Ann. Ent. Soc. Amer. 27:545-549.

Photograph of adult (Figure 3) by courtesy of Dr. Charles Remington of Yale University. Other photographs by B. W. McFarland.

Philadelphia Welcomes You in 1970

by Edward Murray

Philadelphia area iris gardens welcome you before the 1970 Convention. The projected peak season for the Philadelphia area is May 25th. Fly here first and visit with us before the convention.

Iris show time is likely to be May 24th at 1:00 p.m. at St. Alban's Church in Newtown Square, Penn. The staging is excellent here with beige-gray accordion doors as delightful backdrops for the colorful irises. Be sure to come to our show!

Pennsylvania Turnpike users will find the beautiful Hershey Gardens in Hershey, Pa., well worth your while. Use the Harrisburg East exit to U.S. 322 east to the charming village of Hershey, built by the chocolate magnate, Milton Hershey. Tour the chocolate factory, enjoy the town, the park, and especially the Gardens on the hillside below the Hershey Hotel (good food). Besides irises there are 50,000 rose bushes, many lilacs, tulips, daffodils, handsome rare conifers, and swans.

Enroute to Philadelphia, another fabulous garden is the famous Longwood Gardens, east of Kennett Square on U.S. Route One, about 30 miles southwest of Philadelphia. Longwood Gardens boast beautiful conservatories of orchids, cacti, camellias, and azaleas, and outdoors (1,600 acres) the Italian gardens with fountains, a high waterfall and pond, carillon tower, heather garden, alpine and rock garden, conifers, and perennials, including many irises east of the main entrance. Look for the Avenue of Paulownias, too. Furthermore, everything is free!

Philadelphia's western suburbs include many fine private gardens. Foremost is that of John Lyster, who resides in Aldan (seven miles west of City Hall near Lansdowne). His garden has long been the focal point for serious iris enthusiasts in the Philadelphia area. A study in how to have spectacular display is afforded the visitor, for his large oval beds give nostalgic charm for reflection to the author and to most of the thousands of avid, perennial spectators to his Lesson in Beauty. Besides these lovely large beds of standard varieties, John Lyster grows some of the newest and best irises to be seen.

Jake Weber shows the newest introductions available, in Yeadon, immediately west of the city. Nearby, Dr. Frank Walchak demonstrates how orange-red soil of high iron content can intensify iris colors in Lansdowne.

Horse country is good irisland. In the rolling hills of Rose Valley near Media and Moylan the partly formal, partly informal, stone-walled garden of Helen Chariott provides a unique setting for superbly grown irises set amongst perennials. Helen raises the latest varieties tastefully spaced so we may study each one separately.

Bill and Jan Hirsch garden together in Havertown. Bill is our Region 3 RVP. Both love their garden and coddle each plant into blossoming perfection. You may study a fine collection of alpine and rock plants in addition to the perennial border of newer irises. GRAND ALLIANCE (Plough '64) is Bill's special favorite.

From Havertown take City Line Avenue to the Schuylkill Expressway or else the more charming East River Drive for relaxed driving to the Glendinning Rock Garden immediately below the rock-hewn tunnel in Fairmount Park, the largest American municipal park (except Phoenix's desert park). Some beardless irises are found here. The Japanese Garden in (West) Fairmount Park is also endearing. Rare shrubs and trees abound near Memorial Hall. The Azalea Garden north of the handsome Grecian municipal Art Museum and plantings by the Rodin Museum and The Parkway to Logan Circle (with fountains by Calder) and on to Kennedy Plaza (with large fountains) and City Hall are of interest to the flower lover. The fine Colonial Garden adjoining the Pennsylvania Horticultural Society's colonial building at 325 Walnut Street was dedicated by Mrs. Lyndon B. Johnson while First Lady. Around this building stroll through the quaint cobblestone alleys tastefully planted about historic Independence Hall, Carpenter's Hall, through Peter's Alley to Pine Street and back lovely Third Street past carefully restored old colonial homes with gardens behind old brick walls and iron gates. Take a peek and be invited inside!

Philadelphia's northern suburbs contain the Aubury and Curtis Arboretums and famous Morris Aboretum in Chestnut Hill. Iris gardens such as that of Mrs. Irwin Hixson on Camp Hill Road below Penn. 309 south of Fort Washington are rare to find. Hers is amidst a lovely old colonial eighteenth century farmhouse setting with rustic flagstone and tanbark paths meandering between the iris beds of many of the newest irises and drifts of the older favorites.

Mrs. Gustave Landt lives at 1507 Boyer Boulevard in Curren Terrace in eastern Norristown, where a tennis court was transformed into a veritable paradise by planting irises over the perfectly drained, tiled area. The drainage, tender loving care, and purchase of the latest novelties in irises made this all possible. Mr. Landt's fine Japanese garden vies with hers for beauty.

The Kegerise sisters have fine gardens north of Reading. Paul Smith has a choice collection in Sanatoga east of Pottstown. Bill and Marilyn Newhard have very late bloom for post-convention viewing about two miles north of Quakertown on the west side of Penn. 309.

Philadelphia's eastern suburbs include Audubon, New Jersey, where Wink Steinhauer maintains an especially modern collection of the newest

irises selected from the latest introductions of the more famous originators of new irises.

Enroute to the 1970 Convention we personally invite you to leave the Pennsylvania Turnpike at Interchange 29, the last one, go north on U.S. 13 to the third traffic light and turn right onto the "jug-handle" of concrete to Haines Road, then turn left, north for 0.3 mi. to the blue and white sign "Kenwood", turn right to the fifth lane on right, 70 Kraft Lane. We will have AD ASTRA (Babson '67), ALADDIN'S FIRE (Branch '66), ALL AFLAME (Plough '69), AZURE APOGEE (Durrance '67), BABBLING BROOK (Keppel '66), CLAREMONT CLASSIC (Babson '68), COCKTAIL TIME (Plough '66), CORAL ICE (Plough '68), Credo (Babson '66), DIPLOMACY (Keppel '66), EXOTICA (Crossman '70), FLAMING STAR (Plough '67), FOCAL POINT (Newhard '69), FUJI'S MANTLE (Schreiners '66), HELLO (Gatty '67), JAKARTA (Plough '67), JEWEL TONE (Schreiners '66), JOY RIDE (Noyd '68), JUNE SYMPHONY (R. Brown '66), LADY OF LOUDOUN (Crossman '70), LAURIE (Gaulter '66), LIGHTNING RIDGE (O. Brown '66), LILAC MIST (Luihn '69), MYSTIC MOOD (Ghio '67), NIGHT HERON (Tucker '67), NINEVEH (Keppel '66), PANORAMIC (Hamblen '69), PAWNEE PRIDE (Tucker '68), QUIET FLIGHT (Crossman '69), RECITAL (Hamblen '69), REGARDS (Hager '67), ROYAL GOLD (Hamblen '66), SOUTHERN CHARM (Tucker '69), SOUTHERN TRIUMPH (Tucker '69), STUDY IN BLACK (Plough '68), TOUCHE (Hamblen '69), TREND (Newhard '69), VELVET TOUCH (Dennis '66), WAR LORD (Schreiners '68), and numerous fine 1963 to 1965 introductions such as CAMELOT ROSE (Tompkins '65) and BRISTOL GEM (Leavitt '65).

Philadelphia area gardeners welcome you in 1970 as a prelude to what you will see during the Philadelphia Iris Convention in 1973. The Marriott Motor Hotel on City Line Avenue will be our headquarters. From this central location the busses can travel quickly along modern expressways or pleasant byways like Lincoln Drive to residential suburbs or along the East River Drive to City Hall by tree-lined parkways. Philadelphia, the City of Friends (or Quaker City) welcomes you!

CHRISTMAS PRESENT

A membership in the American Iris Society might be just the thing that will bring year-long pleasure to that relative or close friend, especially to those who show interest in gardening. Send dues to

Clifford W. Benson, Executive Secretary, American Iris Society
2315 Tower Grove Avenue St. Louis, Mo. 63110

(Card will be sent with appropriate Christmas Gift acknowledgment)

INTRODUCTIONS FOR 1969

by

Richard Goodman 253 Bloomingbank Road Riverside, Illinois 60546

For the past forty years I have grown many thousands of seedlings, starting in 1929, and since then many crosses have been made with PLICATAS—REDS—BLUES—YELLOWs and others. The following three PLICATAS will be my last introductions. All three are unusually tall, and remained so on second-year plants; they retained their height and their artistically spaced branches with large flowers. All three came from HIGH LIFE X PAINTED WINGS. The amoena influence in PAINTED WINGS shows in some of them; their excellent stalks come from it.

MUTED SHADOWS ('69). (Reg. '69). 48", with four branches. Standards softpinkish tan; falls white ground marked same color as standards. THREE stalks grew this year and were in bloom for 14 to 18 days; all took hot and cool days without one of the stalks going down. It is a BREEDERS' IRIS to put height and branching and large flowers into PLICATA crosses. Price\$25.00

HAPPY YEARS. ('69). (Reg. '68). 40", with three or four branches. Bright red standards (not a brown-red); white ground falls with wide border of the same red. Note in most of the flowers the line down the center of the falls is missing. If a good red self were crossed on it, the result in the first generation might be a *Red Self* of very high quality. Price\$25.00

PEACH SPLENDOR ('69). (Reg. '68). 40", with three or four branches. Standards bright old gold; falls rich yellow ground with bright golden brown plicata markings. Price\$25.00

ALL THREE FOR \$60.00 in 1969.

Very few for sale at these prices, and prices will be the same in 1970. If shipment required this year, order must be received here on or before November 1, 1969.

VORIS IRIS GARDENS

R.D. 2

Watson, Pa. 17777

The Home of Hardiness in Summer Heat and Winter Cold. Underwrites Leonard Woolf's (husband of Virginia) famous words: "I am planting Iris and they will be long flowering after he (Hitler) is dead."

With the Following Introductions

For 1970: **COMMENCEMENT QUEEN**. A pastel self in orchid tinted white. Orange beard. Falls flare widely. Ruffles and frills throughout\$35.00

VIOLET SHADOWS. Standards white. Falls violet with deeper mid-fall shading\$15.00

For 1969: **ELINOR JANE FOUST**. Large and well-formed orange-peach blend, giving coral effect. Strong stalks and strong grower\$25.00

And the appropriate fiftieth Wedding Anniversary Iris of 1968 introduction:

GILDED HEIRESS. Closed, pink-flushed gold standards and hafts. Orange beard on gold-bordered white falls\$20.00

ROBERT CARNEY MEMORIAL FUND

A number of contributions have come in for the Robert S. Carney Memorial Fund. These will be set aside until the committee working on the matter of suitable memorials for American Iris Society's outstanding personalities has prepared its report and it has been approved by the Board. Those wishing to send contributions for this fund may send them to Dr. Chester G. Allen, 608 West Drive, Memphis, Tennessee 38112. Certainly a memorial in honor of 'Bob' Carney, a president who gave of himself unstintingly for the benefit of irises and the American Iris Society, is in good order.

NEW PUBLICATIONS

HANDBOOK FOR JUDGES AND SHOW OFFICIALS, 1969

Revised and updated, this handbook is a must for the judge, the show official and all those who want to keep abreast of the standards by which irises are judged.

Single copy: AIS-member\$1.50 Non-member\$2.00
Lots of 10 or more: AIS-member \$1.25 each. Non-member \$1.75 each.

WHAT EVERY IRIS GROWER SHOULD KNOW

Revised and updated, this revision puts in handy and concise and organized form the information about the American Iris Society and its activities, and about kinds of irises, growing them, diseases and pests, showing irises and hybridizing.

Single copy\$1.00

Lots of ten or more to same address, \$0.80 per copy.

Order from:

American Iris Society
2315 Tower Grove Avenue
St. Louis, Missouri 63110



COLLIE TERRELL

Collie Terrell, with his beautiful new white, **CELESTIAL SWAN**, was one of the major award winners in the 1969 International Iris Competition at Florence. As closely as our rusty Italian will let us translate, **CELESTIAL SWAN** won the cup for the best late blooming variety. Here pictured are Mr. Terrell and the cup **CELESTIAL SWAN** won for him.

POPULARITY POLL, 1969

The Popularity Poll for 1969 finds five new favorites among those who cast votes. They are: (45) DUSKY DANCER, (87) MAHALO, (88) CUP RACE, (97) SOUTHERN COMFORT, and (99) FRONTIER MARSHALL. They replace CHRISTIE ANNE, GYPSY JEWELS, TRITON and WENATCHEE SKIES.

Despite the rather heavy vote this year, there were a number of ties.

The favorite one hundred varieties this year, their position last year, and the number of votes cast for each is as follows:

<i>Position</i>		<i>Variety</i>	<i>Notes</i>	<i>1969 1968</i>		<i>Variety</i>	<i>Notes</i>
<i>1969</i>	<i>1968</i>			<i>Position</i>	<i>Position</i>		
1	1	STEPPING OUT	852	47	43	MUSIC MAKER	212
2	2	WINTER OLYMPICS	623	49	22	FLUTED HAVEN	210
3	3	RIPPLING WATERS	606	50	56	FUJI'S MANTLE	208
4	4	AMETHYST FLAME	458	51	51	CELESTIAL GLORY	205
5	7	ESTHER FAY	404	52	67	FROST AND FLAME	201
6	9	PACIFIC PANORAMA	401	53	33	RAINBOW GOLD	200
7	6	ALLEGIANCE	391	54	59	MOON RIVER	198
8	12	ROCOCO	386	55	54	MELODRAMA	197
9	10	ORANGE PARADE	383	56	45	DARK FURY	192
10	12	WILD GINGER	359	57	50	JAVA DOVE	192
11	15	GINGERSNAP	350	58	63	SABLE NIGHT	186
12	19	LAURIE	348	59	65	MARTEL	185
13	11	CELESTIAL SNOW	341	60	41	PRINCE INDIGO	183
14	5	ULTRAPOISE	339	61	76	BANG	171
15	20	EDENITE	337	61	68	HAPPY BIRTHDAY	171
16	44	CAMELOT ROSE	333	63	81	JILBY	168
17	23	BABBLING BROOK	330	64	46	HIGH ABOVE	167
18	16	VIOLET HARMONY	322	64	77	ROYAL GOLD	167
19	14	BLUE SAPPHIRE	321	66	90	SWAHILI	163
20	24	ONE DESIRE	291	67	64	BUTTERSCOTCH KISS	162
21	30	WINE AND ROSES	281	68	58	BLUE BARON	158
22	18	WHOLE CLOTH	278	68	51	CHAMPAGNE MUSIC	158
23	21	SKYWATCH	277	70	53	EVER AND EVER	157
24	34	DEBBY RAIRDON	276	70	70	TECHNY CHIMES	157
25	26	IRISH LULLABY	272	72	72	MARY RANDALL	153
26	29	HENRY SHAW	270	73	97	CHRISTMAS ANGEL	149
27	36	DOT AND DASH	267	74	91	PRETTY CAROL	147
27	13	STERLING SILVER	267	75	66	CORABAND	142
29	37	CAYENNE CAPERS	263	75	75	WAYWARD WIND	142
29	32	OLYMPIC TORCH	263	77	62	BRASS ACCENTS	141
31	25	CHRISTMAS TIME	261	77	70	COMMENTARY	141
32	17	RADIANT APOGEE	254	77	74	MAY MELODY	141
33	27	DENVER MINT	250	80	77	FIRST VIOLET	140
34	35	LILAC CHAMPAGNE	246	81	97	LADY MOHR	137
35	38	INDIGLOW	242	81	80	UTAH VALLEY	137
36	49	AMIGO'S GUITAR	233	83	89	CRINKLED BEAUTY	136
37	47	GYPSY LULLABY	230	84	91	CHINQUAPIN	135
38	39	RIBBON ROUND	229	85	96	CAPTAIN GALLANT	134
39	40	CHINESE CORAL	227	86	68	GRACIE PFOST	130
39	48	LICORICE STICK	227	87		MAHALO	129
41	55	MILESTONE	226	88		CUP RACE	128
42	31	BLACK SWAN	224	88	84	HIGH LIFE	128
43	61	BLUE PETTICOATS	221	90	97	PINNACLE	125
44	28	ELEANOR'S PRIDE	220	91	77	CROSS COUNTRY	124
45		DUSKY DANCER	213	92	91	CLAUDIA RENE	123
45	60	PIETY	213	93	56	CRAFTSMAN	122
47	42	KINGDOM	212	93	83	MISS INDIANA	122

<i>Position</i>				<i>Position</i>			
1969	1968	<i>Variety</i>	<i>Votes</i>	1969	1968	<i>Variety</i>	<i>Votes</i>
95	82	TEA APRON	120	99	85	EMMA COOK	113
96	97	APROPOS	117	99		FRONTIER MARSHALL	113
97		SOUTHERN COMFORT	116	99	91	PATRICIA CRAIG	113
98	91	PIERRE MENARD	114	99	72	ARCTIC FURY	113

NO DYKES MEDAL FOR 1969

With no candidate receiving the required fifteen percent of the total votes cast, the Board of Directors was polled as to whether or not a supplementary ballot should be issued. The vote was in the negative. Six hundred seventy-two judges cast ballots.

The four leading candidates, in alphabetical order, were:

DEBBY RAIRDON
SKYWATCH

STERLING SILVER
ULTRAPOISE

JAPANESE IRIS AWARDS

W. A. PAYNE AWARD

Votes

12	STAR AT MIDNIGHT (Rich)	
		<i>Runnerup</i>
10	GEISHA GOWN (Maddocks)	
		HONORABLE MENTION AWARD
14	GEISHA PARASOL (Maddocks)	
11	TIME AND TIDE (Maddocks)	
		HIGHLY COMMENDED AWARD
6	Hazzard 455	
5	Hazzard 513	
5	Hazzard 603	

ERRATA IN JULY LISTING

William Mohr Award (not White) NINEVEH (Keppel).

MDB, p. 46. GARNET GLEAM (Sindt), not clean.

Arilbred, p. 49. KARIMA (Keefe), not 14-67-1.

Seedling 64-9, which did so well at the Florence Trials, is registered as CALIENTE (Luihn '68).

MARQUESAN SKIES (Blocker '66), having won an HM award in 1968, is ineligible for another HM award in 1969.

Additional HC. 68-38 (Wisconsin Charmer) . . . M. Reinhardt . . .
7 votes.

TB, p. 48 1766R (Palmer), not 1776R.

NEW YORK 1970

WICHITA 1971

JUDGES CHOICE 1969

Following are the results of the seventeenth annual Judges Choice balloting. Eligible this year were the Honorable Mention Award winners in 1968 and 1969. A record number of 549 ballots were cast, showing the growing regard of this ballot among AIS judges.

TALL BEARDED

<i>Place</i>	<i>Variety (Originator)</i>	<i>Votes</i>	<i>Place</i>	<i>Variety (Originator)</i>	<i>Votes</i>
1	DUSKY DANCER (Luihn)	248	13	PUNCHLINE (Plough)	91
2	FLIGHT OF ANGELS (Terrell)	195	13	ROYAL HERITAGE (Luihn)	91
3	WAR LORD (Schreiners)	164	15	SEASIDE (O. Brown)	84
4	NEW MOON (N. Sexton)	140	15	TINSEL TOWN (Tompkins)	84
5	PINK TAFFETA (Rudolph)	120	15	TUXEDO (Schreiners)	84
6	AZURE APOGEE (Durrance)	116	18	FLAMING STAR (Plough)	81
7	ROYAL TOUCH (Schreiners)	112	18	MATINATA (Schreiners)	80
8	AD ASTRA (Babson)	110	20	LIGHT FANTASTIC (O. Brown)	74
9	WEST COAST (Knopf)	105	21	BACCARAT (Gaulter)	72
10	NIGHT HERON (Tucker)	94	22	GALA MADRID (L. Peterson)	71
11	MUSIC HALL (Hamblen)	93	23	MINNESOTA GLITTERS (Bakke-Messer)	69
12	CHERUB CHOIR (Corlew)	92	23	TIJUANA BRASS (Schreiners)	69
			25	CHARMAINE (Hamblen)	66

Runnersup Receiving 30 or More Votes

<i>Variety (Originator)</i>	<i>Votes</i>	<i>Variety (Originator)</i>	<i>Votes</i>
BARCELONA (O. Brown)	63	DIPLOMAT (Tompkins)	43
CALIENTE (Luihn)	63	DREAM TIME (Schreiners)	43
ETERNAL FLAME (Schreiners)	61	JOLIE (Schreiners)	43
MARQUESAN SKIES (Blocher)	55	APRIL MELODY (Gibson)	41
STUDY IN BLACK (Plough)	54	HIGH SIERRA (Gaulter)	41
TOMTEBO (Ney)	53	OCTOBER ALE (Schreiners)	41
TYCOON'S GOLD (Niswonger)	53	VITAFIRE (Schreiners)	41
SHORT STORY (Keppel)	49	LAUNCHING PAD (Knopf)	40
FLAME AND SAND (G. Carlson)	45	MYSTIC MOOD (Ghio)	40
GLACIER SUNSET (O. Brown)	45	SAPPHIRE FUZZ (Niswonger)	39
STARBURST (Tompkins)	44	GALA ROSE (A. Blodgett)	38
		JANNI (Hamblen)	38
		WESTERN HOST (Hager)	38
		PINK FRINGE (Rudolph)	37
		FIRE BALL (Schreiners)	36
		PINK DIVINITY (Tams)	36

WINTRY NIGHT (Pond)	36	BUTTERSCOTCH RIPPLE	32
ORANGE VISTA (Mayberry)	35	(Hagberg)	
POINT CLEAR (Pickard)	35	SAFFRON ROBE (Moldovan)	32
GINGERBREAD CASTLE	34	SEVEN LEAGUES (Moldovan)	32
(Tompkins)		DISTANT DRUMS (Tompkins)	31
HONESTY (Moldovan)	34	CANARY CADENCE (Gaskill)	30
MARSHMALLOW (Olson)	34	FINAL TOUCH (Terrell)	30
WHITE KING (Knopf)	34	FIRST SNOW (N. Sexton)	30
CRYSTAL BLAZE (Rudolph)	33	HOT SPELL (Plough)	30
TAFFY TWIST (Roe)	33	KIMZEY (Corlew)	30
		PAWNEE PRIDE (Tucker)	30

It may be of interest to note that the top twenty-five represents seventeen different hybridizers, and that the entire list of seventy-one comes from thirty-three different hybridizers.

*Iris*es other than tall bearded which received 25 or more votes. (In cases where no cultivar of a section received this number of votes, the leader is listed.)

MINIATURE DWARF BEARDED

<i>Variety (Originator)</i>	<i>Votes</i>	<i>Variety (Originator)</i>	<i>Votes</i>
BLUE CAPERS (A. Brown)	37	DOLL DANCE (A. Brown)	28
LEMON DOLL (Warburton)	32	FRENCH WINE (Roberts)	25
RED PIXIE (A. Brown)	30	NAVY DOLL (A. Brown)	25
BROWN WINGS (Mahood)	29	PATSY JO (Kavan)	25

STANDARD DWARF BEARDED

CHERRY GARDEN (B. Jones)	99	IRISH LILT (A. Brown)	36
REGARDS (Hager)	50	BLUE MOSS (B. Jones)	32
BLUE CANARY (Hamblen)	49	PINK CUSHION (A. Brown)	33
LEMON SPOT (Tim Craig)	47	FINE PRINT (Keppel)	32
TEBBY DARE (Wolff)	45	ROYAL FAIRY (A. Brown)	30
QUAIL (L. Craig)	43	FOOTNOTE (Keppel)	29
DOVE WINGS (Roberts)	37	BLOODSPOT (Tim Craig)	27
LITTLE BLACKFOOT	37	TWICE BLESSED (Dennis)	26
(M. Reinhardt)		PLATINUM GOLD (Roberts)	25
RED HEART (A. Brown)	36	WATERCOLOR (Roberts)	25

INTERMEDIATE BEARDED

JUNE PROM (A. Brown)	73	TEKO (Z. Benson)	34
LIGHT CAVALRY (B. Jones)	54	FLARETTE (Plough)	30
ARCTIC NIGHT (A. Brown)	49	KONTIKI (Plough)	29
RASPBERRY FLIP (A. Brown)	49	ALPINE HALO (A. Brown)	27
PREAMBLE (Keppel)	44	PING PONG (Plough)	25
OHIO DEB (Dangler)	38	RIC RAC (Plough)	25
ANNIKINS (Warburton)	36		

BORDER BEARDED

<i>Variety (Originator)</i>	<i>Votes</i>	<i>Variety (Originator)</i>	<i>Votes</i>
BOTANY BAY (B. Jones)	82	PAMELA KAY (Wolff)	32
BABY SHOWER (Ghio)	76	BONE CHINA (Muhlestein)	25
JUNIOR PROM (Ghio)	71	BUG'S EAR (Gibson)	25
RASPBERRY PARFAIT (C. McCaughey)	65	NEBRASKA CENTENNIAL (Wolff)	25
DASHING DEB (A. Brown)	43	NEW DEW (Wolff)	25
MISS RUFFLES (Wright)	41	ORCHIDS AND SNOW (Vallette)	25
BRIDE'S PEARLS (A. Brown)	39		
GEMINI (Knopf)	35		

MINIATURE TALL BEARDED

DAINTY DAMSEL (A. Brown)	51	WHISPERING SPRITE (Guild)	34
ICE FAIRY (Witt)	51	TABLE WARE (Muhlestein)	31
RING BEARER (Cook)	36	DAINTY DOVE (A. Brown)	26
ROYAL THRUSH (Roberts)	35		

ARILBRED

ESTHER THE QUEEN (Hunt)	99	SARACEN WARRIOR (M. Rogers)	34
BETHLEHEM SONG (D. Foster)	47	PERSIAN MARKET (D. Foster)	31
AMETHYST ACCENT (Kidd)	39	MOONSPOT (D. Foster)	28
DARK EYES (Rich)	34	LAKE MATTAWA (Gadd)	25

CALIFORNIA

NATIVE MUSIC (Ferguson)	19
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JAPANESE

GEISHA PARASOL (Maddocks)	35	ENCHANTING MELODY (Rich)	26
ORIENTAL TRACERY (Swearengen)	32		

LOUISIANA

DELTA KING (Hager)	39	NEW COMER (Davis)	25
MADCAP (Davis)	28		

SIBERIAN

RUBY WINE (Hager)	68	ILLINI ENCORE (Varner)	52
LIGHTS OF PARIS (Rich)	64	BLUE BURN (McGarvey)	27
SPARKLING ROSE' (Hager)	60	DEWFUL (McGarvey)	26

SPURIA

WOODWIND (Hager)	38	HIGHLINE LAVENDER	25
YELLOW WINGS (Ferguson)	30	(McCown)	
PURPLE KNIGHT (Ferguson)	26	INTENSITY (Ferguson)	25

Symposium—*Median Iris Society*

Donald I. Tufts, Chairman

STANDARD DWARF BEARDED

1. BLUEBERRY MUFFINS
2. CHERRY GARDEN
3. SKY BABY
4. PAMELA ANN
5. CIRCLETTE
6. KNOTTY PINE
7. BRASSIE
8. ZING
9. REGARDS
10. GOLDEN FAIR
10. GREEN SPOT
11. EYE SHADOW
12. BLUE DENIM
12. ORANGE CAPER
13. SHINE BOY
14. MARINKA
15. JOY BRINGER
16. EASTER HOLIDAY

BORDER BEARDED

1. TULARE
2. JUNGLE SHADOWS
3. LACE VALENTINE
4. FRENCHI
5. BLUE MILLER
6. CRYSTAL BAY
7. PEBBLES
8. BAYADERE
9. DEBBIE ANN
10. ELLEN Q.
11. LITTLE MARK
12. BOTANY BAY
12. CARNIVAL GLASS
13. LA NINA ROSA
14. MISS RUFFLES
15. TIMMIE TOO

INTERMEDIATE

1. LILLIPINKPUT
2. LIME RIPPLES
3. DRUMMER BOY
4. CUTIE
5. DILLY DILLY
6. ARCTIC FANCY
7. MOONCHILD
8. CLOUD FLUFF
9. ANNIKINS
10. MAROON CAPER
11. ARABI TREASURE
12. KISS ME KATE
13. LIGHT CAVALRY
14. BARBI
15. OHIO DEB

MINIATURE TALL BEARDED

1. PEWEEE
2. DAINTY DANCER
3. TOPSY TURVY
4. WIDGET
5. TOM TIT
6. DESERT QUAIL
7. WARBLER
8. ICE FAIRY
9. DAINTY DAMSEL
10. BUENITA
10. KALEIDOSCOPE
11. SMARTY PANTS
12. PAINTED ROSE
13. CHARLIE BROWN
13. DAYSTAR
13. PARAKEET

NEW YORK 1970

WICHITA 1971

THE VOTE FOR THE DYKES MEDAL

In the discussion incidental to no candidate having received the necessary fifteen percent of the votes necessary for selection, the point has been made by several members that the Dykes winner should be one that will perform well in all sections of the country; and inquiries have been made as to the breakdown in voting by areas or Regions. For what it may contribute, below follows a breakdown in percentages of votes, rounded off to nearest full percentage, in each Region, plus other data.

REGION	Percentage of Vote of Region for the Four Leaders.				Other Varieties Receiving Votes		Number of Varieties With More Votes Than Leader
					Number	Percent	
1	12	8	8	4	10	68	2
2	5	14	0	10	12	71	0
3	0	11	11	14	11	52	1
4	5	22	0	9	7	64	1
5	13	40	0	0	6	47	0
6	6	0	7	11	16	76	1
7	4	18	4	11	11	63	0
8	0	27	0	23	6	50	0
9	3	5	5	8	16	79	4
10	0	0	0	0			
11	5	10	10	20	11	65	1
12	0	0	46	0	9	54	0
13	39	6	6	0	9	49	0
14	4	21	4	0	18	71	0
15	3	13	10	3	15	71	1
16	0	0	0	0	4	100	3
17	0	14	2	9	13	75	1
18	2	27	4	7	19	60	0
19	0	20	7	7	5	64	1
20	11	11	11	0	6	67	6
21	4	12	4	20	13	60	0
22	17	0	6	6	18	71	0
23	0	0	13	0	8	87	2
24	11	18	7	0	12	64	0
Foreign	0	0	0	25	3	75	3

TOTAL VOTES CAST: 672

MEDIAN IRIS SOCIETY MEDAL

These medals were awarded this year to Bee Warburton for BRASSIE (SDB), to Alta Brown for LIME RIPPLES (IB) and to Tom Brown for BLUE MILLER (BB).

(Photo by Ira Wood)



The New Look in Japanese Irises

Text and photos by Gordon Blackwell

Japanese Iris Society President Eleanor Westmeyer of Stamford, Conn., is enthusiastic about July bloom of her large choice collection, some of which she inspects here. The skyscrapers on the left are DEBONAIRE PRINCE (Payne '62). This 52" variety has six buds per stem, and it opens horizontally into a medium amethyst-violet.



Attractive *gold darts* are the typical yellow signals of Japanese irises and are prominent in ELEANOR'S CHOICE, which A. H. Hazzard registered in 1967 in honor of Mrs. Westmeyer. It is a reddish violet-purple self, with six falls and no standards.



Elegant simplicity of the single *kaempferi* is especially admired in Japan. Here **ORIENTAL TRAGERY** (Swearengen 67) has gracefully cupped small standards and styles in distinctive lavender. These artfully bend with the shape and purple veining of the falls.

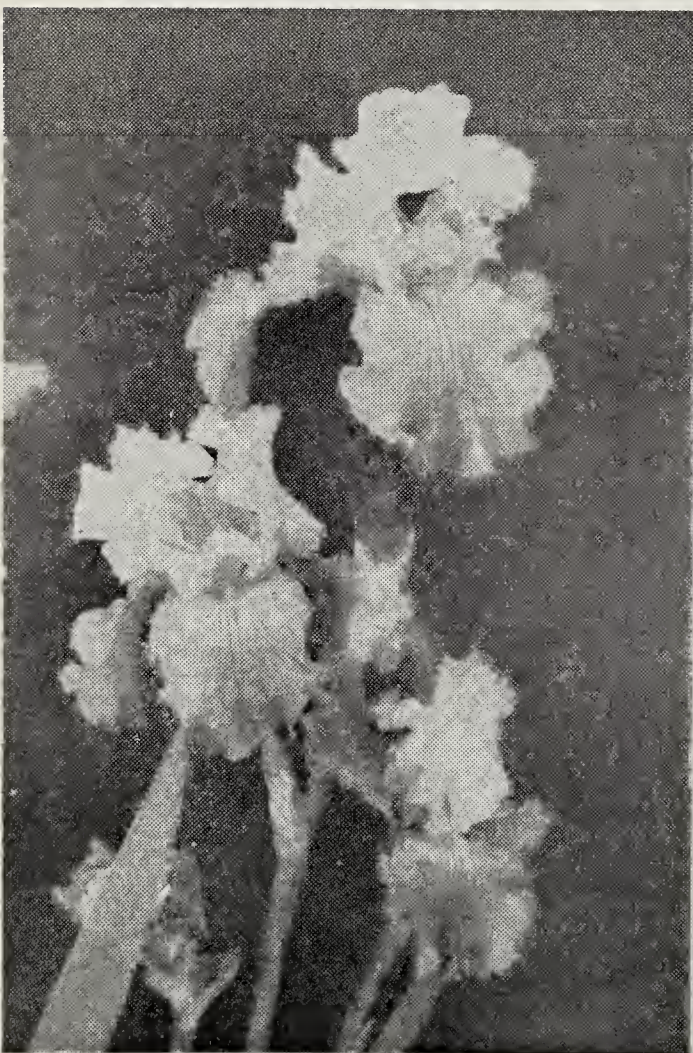
The ruffled perfection of **BLUE NOCTURNE** is in violet-ultramarine. It won an International Gold Medal in the International Horticultural Exhibition of 1963. It is one of Eleanor Westmeyer's many favorites.



Bearded and Japanese irises both can be dappled, but there is a difference. Compare ODDFELLOW (Muhlestein '56) on the left with the Japanese WOUNDED DRAGON (Payne '63), both pictured below. ODDFELLOW is unusual for a bearded iris, but its blue-violet is streaked and splashed rather than finely etched. *Kaempferi* often show intricate marbling. WOUNDED DRAGON'S dominant color is pansy-violet. Three of its six petals are folded upward in this fresh flower. After a day these unfurl and enlarge. This ability is applauded by Japanese gardeners and flower arrangers.



Overlapping tiers of very broad petals make SEAFURY (Payne '52) a rare treat. No longer is the Japanese iris "a handkerchief on a stick." This one has form, beauty and size to rival *magnolia grandiflora*. The frilled violet styles of SEAFURY create inner rhythms in a white flower with pale blue-violet veins. Notice its attractive bud.



MYSTIC MOOD (Ghio '67)

BRIDAL SHOWERS (Ghio '69)

(Photos by Bryce Phenis)

BOOK REVIEWS

Bearded Iris Species of Rumania—Iuliu Prodan

Many of the basic species which have been used by our hybridizers in producing the new types of dwarf and median irises are natives of Rumania, mostly collected by Dr. Juliu Prodan and sent or brought to North America by Rudolph Hanselmayer, Robert Schreiner, Dr. L. F. Randolph, Eckard Berlin and others. In his own country Prodan is considered the final authority as to the botany and taxonomy of the native irises. His treatment, although disputed by other experts, still forms the basis for the section on Irises in the series *FLORA REPUBLICII SOCIALISTE ROMANIA*, Vol. XI, Editura Academiei Republicii Socialiste Romania, 1966.

Professor Prodan published his studies of the genus *Iris* in four major articles:

1. "The Iris Species of Rumania," *Bulletinul Gradinii Botanice si al Muzeului Botanic dela Universitatea din Cluj, Roumanie*, 1934. Vol. XIV No. 3: pp. 1-198.

2. "Critical Consideration of One Species of the Genus *Iris*." *Extras din Bulletinul Facultatii de Agronomie din Cluj*. Vol. VIII, 1939.

3. "New and Revised Species of the Genus *Iris*." *Scientific Annals of the University of Jassy (Iasi), Section II (Natural Sciences)*, Vol. XXVII, No. 1, 1941.

4. "Contribution to the Understanding of Iris Species in Rumania and Elsewhere." *Bulletin of the Botanical Garden and Museum of the University of Cluj*." Vol. XXV, 1945. No. 3-4, pp 185-297.

The first was translated from the German under the direction of Dr. Katherine Heinig and published by the Median Society in 1964. The second is in both Rumanian and German and is being translated by the combined efforts of Bee Warburton working on the Rumanian and Jerry Flintoff of Tacoma, Washington, working on the German, and will be checked out by Professor Emilian Topa of the University of Jassy in Roumania. The third was translated from the French by MIS editor Bee Warburton and published by the Median Iris Society in 1968. The fourth is in process of final translation from the Rumanian and is being checked by Professor Topa. The four translations will then be printed and published in a single volume by the Median Iris Society.

IRISES

Harry Randall

Irises, by Harry Randall. Eight full-page color photos, fifty photographs, numerous line drawings. One hundred seventy-six pages. Printed 1969, in Great Britain. (Editor's note: We understand that an American edition will be printed soon.) Available from Taplinger Publishing Company, 29 East Tenth St., New York, New York 10003. \$8.95.

This book has been written for the use of amateur iris growers. While it contains sections on Siberian, Pacific Coast, Louisiana and spuria irises, the main emphasis is on bearded irises, particularly tall bearded.

The author, a noted English gardener, died prior to publication, and the incompleated portions were filled in by his wife, daughter and friends.

They adhered to the writing style of Randall so faithfully that no discontinuities and patchwork spots are apparent. Regrettably, proof reading was not thorough before publication, for errata slips are entered to correct three statistical errors and two transposed photo captions.

The most candid and outspoken chapter in the book is that titled, "What Constitutes a Good Iris?" In it, Randall, without equivocation, prescribes essential requirements of a good iris. In another chapter he designates and describes the one hundred irises he most highly recommends.

Randall evaluates the contributions of deceased iris hybridizers with candor and fine objectivity, but he abides by a self imposed rule under which he declines to comment about any living person. Now that he himself is deceased, his own work can be evaluated under his own standards. By those standards, or any other standards, it merits a rating of excellence.

W. J. Gunther



AT MILWAUKEE

Herbert Parker and
Robert Schreiner

Helen McCauhey and
Dr. Chester Allen

(Photos by Scharff)

AN IRIS FIRST IN SOONERLAND

Perry L. Parrish

An iris show on four consecutive weekends at the Oklahoma City Garden Exhibition Center is no doubt a "first" in four-season country. Blasting off the show season was the newly organized Sooner State Iris Society with a show on April 27. Despite a late bloom season, over 300 entries were made and gave the gardening public a chance to see many of the medians and arils that are often absent from the regular iris shows. The following weekend the Oklahoma Iris Society held its show on May 3 and 4. The weekend of May 10 and 11, over 120 entries were made in the iris section of the Oklahoma City Council Spring Show and plans call for this section show to be an AIS approved one in the future.

The weekend of May 17 and 18, the first AIS approved Apogon Iris Show was held and attracted hundreds of people who were attending a rose show held in a separate exhibition hall at the center. On display were spurias, Siberians, Louisianas, species and Dutch. A judging school on spurias was held each day and a session of garden judging was held in the nearby Will Rogers Park Spuria Display Garden.

Mrs. Loretta Aaron, a superb horticulturist, entered all four shows and won "best of section" in each of them. She holds the distinction of being the only person to enter irises in all four shows.

EASY COMPOSTING IS IN THE BAG!

Robert Paul Hubley

Iris growers and other gardeners will be interested in a new method of composting which is cleaner, better and easier than any other method I've tried or even heard of. It's simple—compost in plastic bags!

You start with plastic "trash can liners." I get mine from Sears and Roebuck for about one dollar for ten of the 32 gallon size plastic bags. They are made of one and one-half mil. polyethylene plastic.

Line your trash can with one of these plastic liners and throw everything in that will make good compost (more on this later). When it is full, add about a quart of water, tie tight around the neck and roll it out on the ground. Then repeat the process.

When the second bag is full, roll it out; and roll the first bag over so the top is on the bottom. Repeat with the other bags to come. By the time the fourth bag is filled, the first one is ready to use, and so on.

Polyethylene plastic holds water and moisture but admits air. Consequently, composting in plastic bags is very conducive to the propagation of earthworms, who in turn are helping to break down the decaying matter in the compost.

What to compost? I recommend the following:

Garbage. Put it all in . . . except onions.

Leaves. Good, but don't throw in big batches of leaves. Intersperse or mix with other materials.

Grass clippings. Good, but here again, don't throw in big batches of grass clippings. Intersperse with other materials. A large mass of grass clippings left alone tends to form a dense, messy mat.

Cow manure. Don't use. Manure has comparatively little nutrient value, and in Southern California may cause trouble, since it is high in salinity and alkalinity.

Fertilizer. A general purpose chemical fertilizer should be sprinkled on any "green" matter such as leaves or sawdust added to the compost.

Sawdust. Good, if used sparingly. Be sure to add nitrogen.

Iris leaves and rhizomes. DO NOT USE. They may be diseased.

Anything organic can be composted. I think you will be pleased with this method of making compost in plastic bags. It certainly beats taking up half of the back yard with compost bins, which I dislike having to turn!

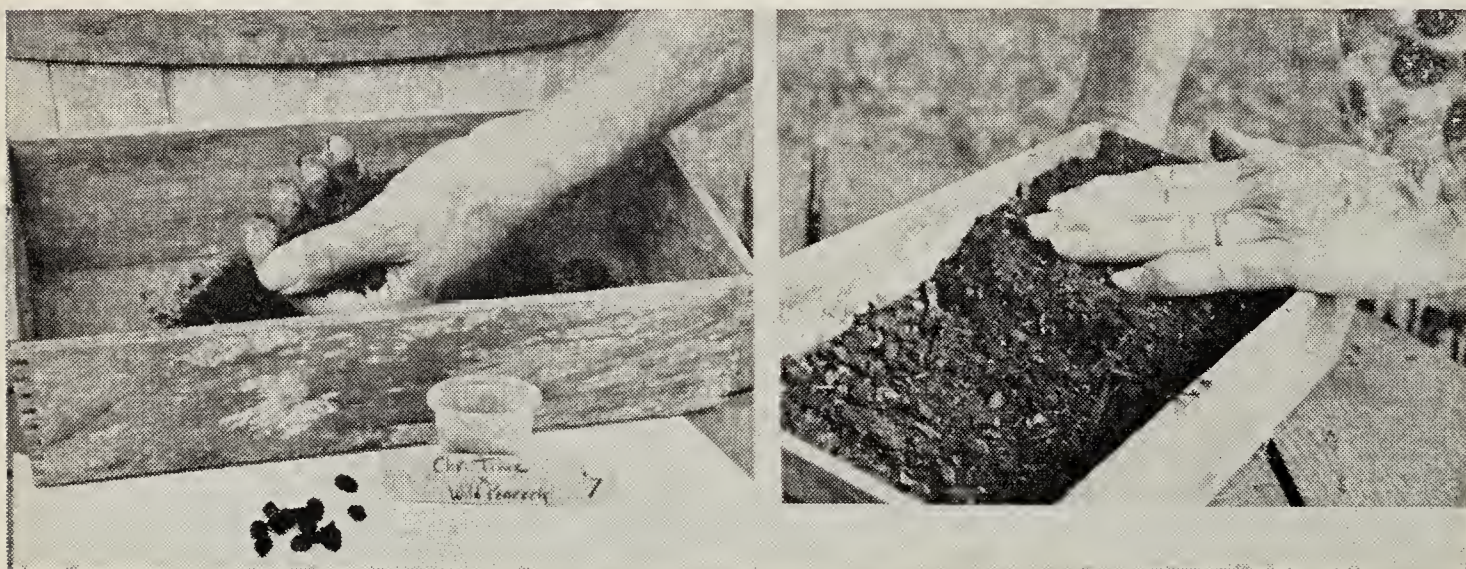
Easy-Does-It Seed Planting Method

by Gordon Blackwell

In Spring Valley, N.Y., Veronica Quist has developed her own favorite method of germinating iris seeds and reports continued success. "There are many ways," she says, "of doing this job, but here is my way of taking care of a chore quickly and easily."

It is a case of simplicity paying off: no punching holes in cans, no sinking flats in the ground, no fungicide or fertilizer.

The 1967 harvest of iris seeds was late in New York State, so by the time seeds were sufficiently dried, it was Sept. 17. That was the date of the planting of the 43 seeds from one pod, as shown in the accompanying photos. Some people prefer to wait until November or even early the following year, but Mrs. Quist doesn't mind a few sprouting the year of harvest because they will no doubt be protected in the cold frame. It has sturdy wooden sides and hinged glass pane on top.



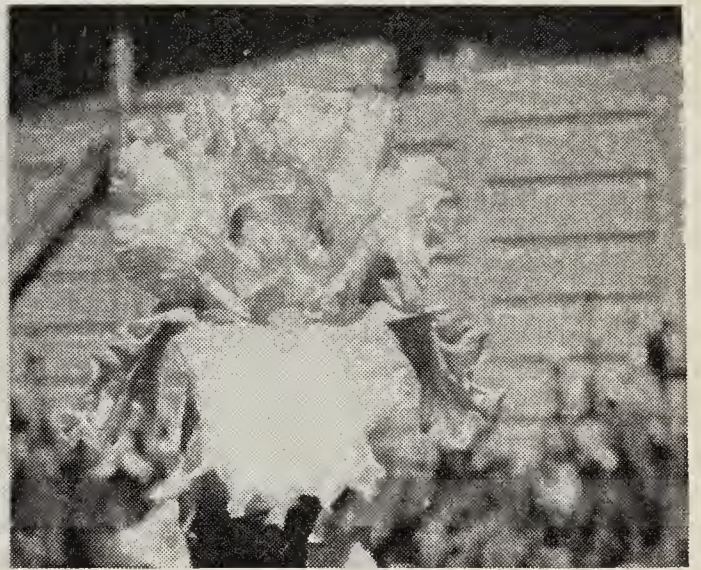
The dirt floor of the frame is lined with layers of newspapers on which the seed boxes rest. Occasional inspection for mold (The lid is lifted and air let in.) and ventilation on mild days are essential, but that's the only follow-up needed. In spring, when the shoots are 2" or 3" high, they are planted outdoors in rows. Hopefully this is before the "TB bloom riot begins." She discards the contents of the seed boxes at that point, not saving any for second year germination unless oncos or very unusual crosses are involved.

With this simple, effective method, Mrs. Quist often gets flowering the second spring after the cross was made, although she believes that the color and the form is improved on the third year bloom.

The label recording parentage is weather-proof plastic. A written record is also made indoors at once in case of label displacement. A weathered wooden box is employed like this cigar box, which measures 11" x 5½" x 3" high. Unless there is enough warp at the sides and bottom to assure drainage, holes are drilled at intervals in the bottom. Good soil, such as woody loam or compost mixed with soil, is used. There is no need to sift it, but large chunks are broken up. The box is half filled. Mrs. Quist finds no advantage in placing sand or pebbles on the bottom of the box first.

Separate the seeds from each other by about 1" so the roots do not become intertwined. Shaking the seeds over the half-filled box and then repositioning any that are too close is the quick way to "naturalize" the planting.

About 1" more of the woods soil is added and tamped down. The important thing to remember here is that the final soil level should be lower than the top of the box so washover is prevented. Soak the soil with water, insert the weatherproof tag into the box and lower the whole thing into the coldframe. Further moisture is provided by condensation in the coldframe, which also protects from digging animals and lawnmowers.



ROYAL TOUCH (Schreiners '67) COUNTY FAIR (Corlew '66)

(Photos by Bryce Phenis)

The Pitfalls of a Beginner Hybridizer

Leah Ralls

Having heard how easy it is to hybridize irises, I innocently enough made by first cross. My first mistake was to choose an iris of lovely color but doubtful substance, and the second was to cross it to an *unknown* red! Well, I guess you have to start someplace!

Only two seeds out of a pod broken off by the neighborhood kids (pitfall No. 3) germinated, and the next year I eagerly awaited the unfolding of the first bloom on this masterpiece. It was so horrible I couldn't find the shovel fast enough.

There followed a lapse of a season or two while I recharged my courage to try again. In the meantime there had been planted in my backyard the several hundred seedlings of a hybridizer friend. It wasn't long before the fever really caught. Encouraged on one side by this friend, and on the other by another, both hybridizers of several years standing, that you "really didn't have to know the Mendelian law (tho' they *did*) or read a book on genetics (which they *had*); just get out there in the patch and cross! They would coach me as time went by" . . . Hollow promises those! When the iris season again returned, they were far too busy doing their own anther snipping and pollen dusting to remember the little ole beginner!

Fortunately, my hearing is excellent and by sending out my antennae in both directions I was able to glean more know-how in one season of roaming the patch with these two, than I could have acquired in five years of trial and error on my own! (It really isn't much fun on your own, anyway. For instance, they weren't too enthusiastic over one that bloomed out and was all beard . . . no standards or falls, just *beard*, which I wanted to name "Whiskers." They simply didn't see that this would add much to the Iris World!)

Since the patch is growing in my backyard, I have the fun of keeping it up, fighting the bugs, pulling the dead leaves, feeding and watering and in general babying the seedlings. But this is child's play compared to keeping the Wild Indians in the neighborhood from having their dirt clod fights across the middle of the patch or digging their club house dens so close to the patch the visitors fall in! To say nothing of guarding the name markers with my life . . . The tree trimmers came swooping through one day when I wasn't home and decided it wouldn't hurt anything if they dragged the limbs right through the patch! (I wondered where those markers went!)

In spite of it all, this is the most fascinating hobby I have ever pursued. There is always the unparalleled joy of being the first one out of bed at the crack of dawn when the seedlings bloom and being the first to view this never-before-seen blossom, which there has never-before-been one exactly like! You feel like a feminine discoverer that would put Columbus in the shade. The pitfall here is to beat the hybridizers to the patch and not get caught out in your nightrobe!

Next season will see the first bloom of my naive attempts to produce a pink and white amoena and pink and blue bicolor. After much pouring over several years of old AIS bulletins, the light is dawning that it is a long way down this primrose path. But if I do go half-crazy with frustration, I can console myself that "no iris hybridizer with unbloomed seedlings ever committed suicide."

My hybridizing friends will no doubt have a Dykes winner out of the patch; already some really beautiful things have unfolded. The talk of chromosomes and tetraploids, line breeding and out-crossing; the scientific approach will probably pay off for them. On the other hand, I've a sneaking hunch that it's all a matter of TLC and prayer anyway! And if you have ESP to tell you what to cross, you've got it made!

IRIS TOPS

Lynn Markham

We are often told never to breed together two irises with the same fault, and in a general way this is good advice. But its validity is limited; it applies only insofar as the character we are talking about is a simple one genetically. Most of the things we are inclined to think of as simple traits are in reality complex ones, any facet of which can be changed without changing the other facets. And so it is that fault-doubling now and again produces a pleasant surprise, and conversely, that crossing two irises with an apparently similar virtue sometimes fails to produce the virtue intensified.

This happened in my seedling beds several years ago when I first bloomed a cross of BLACK SWAN X FLAMING HEART. Both irises have good

form and well-held standards. Why then were the standards on most of the seedlings so shapeless?

About the same time I bloomed the cross of INCA CHIEF X WAR PAINT. The standards of these two parents are also "good," individually, but here I got the wildest spread of standard types—all the way from great tall globby ones which went down in the first breeze, to the tightly held ruffled ones which are a prime asset of our 1968 introduction, MOHAWK TRAIL.

It was obvious that there was more to the formula than GOOD X GOOD = BETTER, so at this point I took a walk around the garden, looking at the standards of every good, bad and indifferent iris on the place, and especially the seedlings in relation to each other and to their respective parents. By the time I had finished walking, the irises themselves had explained things (as they often will, given a chance).

A good standard is the carefully balanced combination of at least three major characters, each subdivided into several more characters. Apparently all of these are separately heritable, since they appear in dozens of combinations and recombinations. They seem to break up approximately as follows:

1. Petal
 - a. width
 - b. height
 - c. texture
 - d. degree of ruffling and/or lace
2. Midrib
 - a. length
 - b. shape—straight or C-curved
 - c. texture
3. Attachment
 - a. position (vertical or leaning in or out)
 - b. stability (whether the petal stays in its original position or moves as the flower expands)

It becomes apparent that there are many types of "good" standards and many types of "bad" ones, and that the features which look fine on one iris top can be awful on another. Suppose that one flower has short standards with stiff midribs extending all the way up the petal and attached so as to stand stiffly erect. If the petal itself is extremely ruffled and very wide, the "top" will appear quite full and may be very attractive. But take the same structural makeup and combine it with a narrow and very plain petal, and "You could drive a truck through it, for Pete's sake!" Similarly, a long and C-curved midrib of firm texture will produce cupped standards if the petals are short, or perfectly domed ones if they are longer, all other things being equal. One might even breed together two irises with open stands and get closed ones in an occasional seedling, if one were the "cupped" variety and the other were open only because of insufficient substance and weak ribs. Not that this is a good idea—it is *still* better to balance virtues than to juggle faults. But it is possible.

There emerged from all this peering and musing only one absolute villain, to be studiously avoided if possible. This is the top that "springs" open, and it seems dependent on faulty attachment. The rib is erect when the flower opens, but begins to lean out from the center of the flower as it expands. If one must use this type in breeding, its mate had better be perfect in all respects.

Perfection is a matter of taste, but from both the aesthetic and the genetic point of view, I think the best "top" an iris can have has petals of moderate

length and good width, with plenty of substance and at least some ruffling. Its midribs are stiff, C-curved, and extend $\frac{2}{3}$ of the way up the petals, leaving the last third to lend softness to the overall picture. Their attachment is erect, so that the ends of the ribs point towards the center of the flower, and this position is stable. This sort of top will never open, and is highly resistant to such things as pelting rain and high winds. Hail may shred it, but it will never collapse. This is the sort of top I would choose to have on one side of every cross if it were possible—unfortunately the type is somewhat scarce.

Getting back to BLACK SWAN X FLAMING HEART, we have:

BLACK SWAN

FLAMING HEART

- | | |
|---|-------------------------------------|
| 1. Petal | |
| a. wide | a. medium width |
| b. medium height | b. fairly short |
| c. medium texture | c. medium texture |
| d. very slight ruffling | d. virtually no ruffling |
| 2. Midrib | |
| a. length about $\frac{1}{3}$ of petal height | a. about $\frac{1}{3}$ |
| b. C-curved | b. almost straight |
| c. texture fairly soft | c. medium texture |
| 3. Attachment | |
| a. position approximately vertical | a. approximately vertical |
| b. stable | b. very slight leaning-out tendency |

Out of this combination there can be few if any long or very strong midribs, only slight ruffling, and few very heavy-substanced petals. Furthermore, there may be some standards that tend to open on expanding. There is almost no potential for improvement; most changes will be for the worse. So while both parents are balanced in such a way as to be attractive, they make a bad combination (for standards, that is—I still have and am using one of the seedlings for other purposes).

In the other cross we have a different story altogether. The standards of the parents are vastly different in type:

INCA CHIEF

WAR PAINT

- | | |
|--|------------------------------|
| 1. Petal | |
| a. medium width | a. wide |
| b. above average height | b. below average height |
| c. good substance | c. somewhat soft |
| d. light ruffling | d. light waving |
| 2. Midrib | |
| a. length $\frac{2}{3}$ of petal height | a. length also $\frac{2}{3}$ |
| b. shape fairly straight | b. shape C-curved |
| c. texture quite stiff | c. texture rather soft |
| 3. Attachment | |
| a. position upright, leaning in slightly | a. position erect |
| b. stable | b. stable |

Now picture the seedling with standards as long as INCA CHIEF'S and as wide as WAR PAINT's, with a long but soft rib and no ruffling at all. Nuff said. But at the other end of the scale was MOHAWK TRAIL,

which has what I have previously described as perfect standards, whatever else may be wrong with it. Unlike the other cross, this one had the potential for great improvement as well as gargantuan failure. It could not produce uniform excellence, but it was worth a try for the right recombination.

After that, I began to pick parents with my little chart in mind, and there have been fewer "goofs." I still get some horrors—who doesn't? But I feel that I'm going into each cross with my eyes open, not playing Russian roulette with the tweezers. When I want to use something with poor standards I at least give myself a chance at getting good ones, by balancing not overall appearance but specific details.

In 1967, I bloomed a handful of intermediate seedlings from Bee Warburton's DE 405, a hybrid from PROGENITOR X *I. aphylla* DARK VIOLET. It has awful standards, really, but breaking it down to specifics, it has weak midribs, light texture and lack of width. Everything else is o.k. Picking out a black to cross with it was a matter of finding one to counterbalance these faults without adding more, and with blacks, one can look a long way to find such a "top." DARK SPLENDOR was the only possible choice, it seemed—the only dark iris in the garden with heavy, C-curved ribs, perfectly positioned, and a beautifully proportioned petal with leathery substance. "Perfect standards," in other words. The payoff was that not one of the seven seedlings that bloomed had a poor top, "Mama" notwithstanding. The colors were intriguing too, but that's another story.

SWAMP GARDENS IN THE DESERT

Jane Harding

An Easier Way to Build An Acid Bed

"How's the iris garden coming along?" Will asked. (Will's my neighbor.)

"Oh, fine . . . it's all done except the acid-bed."

"What the heck's an acid-bed?"

"A bed to grow acid-loving plants in. This one has to be in full sun, and still stay moist."

"In the desert?" Will said. "That's *really* fighting nature."

"I just want a small one, but I can't figure out how to hold the water in."

"Concrete?" Will asked.

"Too much work. There ought to be an easier way."

"I think you'd better get some bentonite."

"Some *what*?"

"Bentonite. Oil-well driller's mud. It's a crazy clay powder. They mine it. Use it for all kinds of things . . . ranchers hold water in ponds with it. Don't see why it wouldn't hold water for you. Swells up when it gets wet."

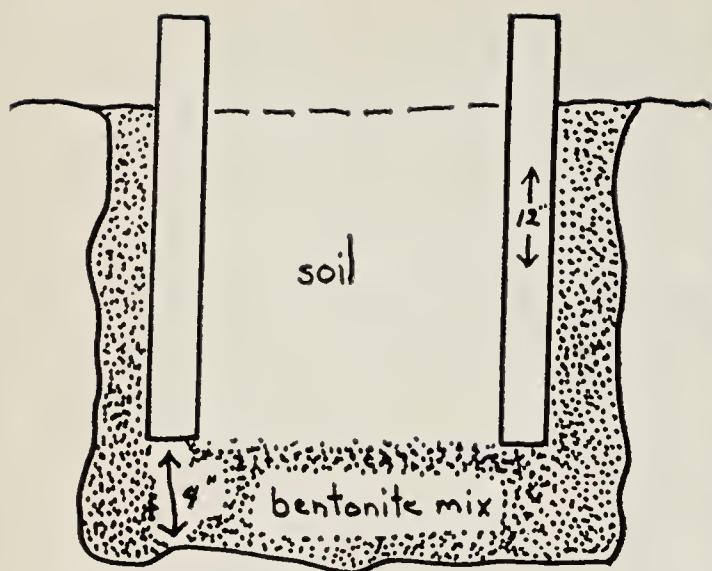
"Yes, but some plants have to dry out a little in summer."

"That's no problem. Quit watering it and it shrinks up again."

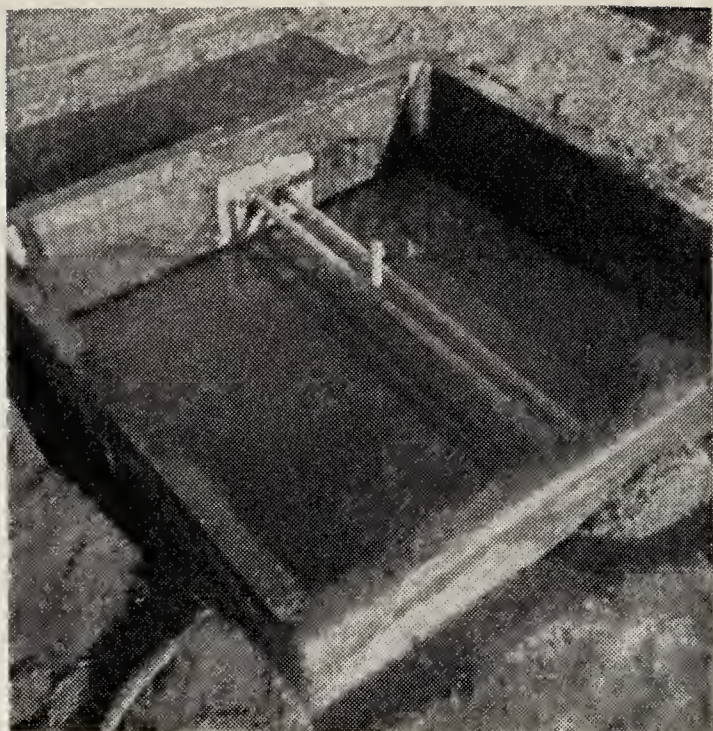
"Will, I knew you'd have a good idea. Thanks! The first good flower I get is yours."

* * * * *

As long as I was building one, I decided to build *two*, which fitted the garden design better. I had galvanized irrigation pipe laid, coming off a



Cross-section of bed.
Building the bed.



separate key, so the “wet beds” could be watered independently of the rest of the garden. The lumber yard found some 12-inch redwood stock, two inches thick, and cut it the right sizes for two frames 45” square (No bottom—just sides). We braced them inside with galvanized corners, oiled them well, and sealed the cracks and knotholes with roofing cement, thick and black.

Then we dug a square bed and tried to lay the frame in place, and of course, we’d forgotten that the pipe was about four inches down, and the boxes were a lot deeper. So we took a saw and a chisel and knocked out a slot in the side of the box, starting at the bottom and extending up about half-way, so we could lay the frame over the pipe. Then we cut a piece of sheet metal to fit over the gap around and under the pipe. *Now* we were ready to fill the beds.

I went down to the chemical company and bought 100 pounds of bentonite, 50 pounds for each bed. (It’s quite cheap, about \$2.50 for the 100 pounds.) We strained some dirt and mixed it with the bentonite, using about two of bentonite to one of dirt. We dug out the bed, measuring rather carefully, so that it was four inches deeper than the point where the bottom of the frame would reach, and laid a four-inch layer of our mixture in the hole. Then we laid the frame on this layer and got it level all around. (See drawing) We nailed the piece of sheet-metal over the open slot in the side-wall and plastered all the openings with roofing cement. We watered the bottom gently with a spray, being careful not to make any holes in the bentonite mixture. Then we filled the bed with a mixture of soil, peat, manure, sulphur, and other goodies. ✓

I was worried that the beds might get too flooded in the rainy season, so on the down-hill side of each bed we bored two holes, about an inch below the surface of the soil, and plugged them with big Thermos corks. (I thought if it needed drainage, I could pull the corks.)

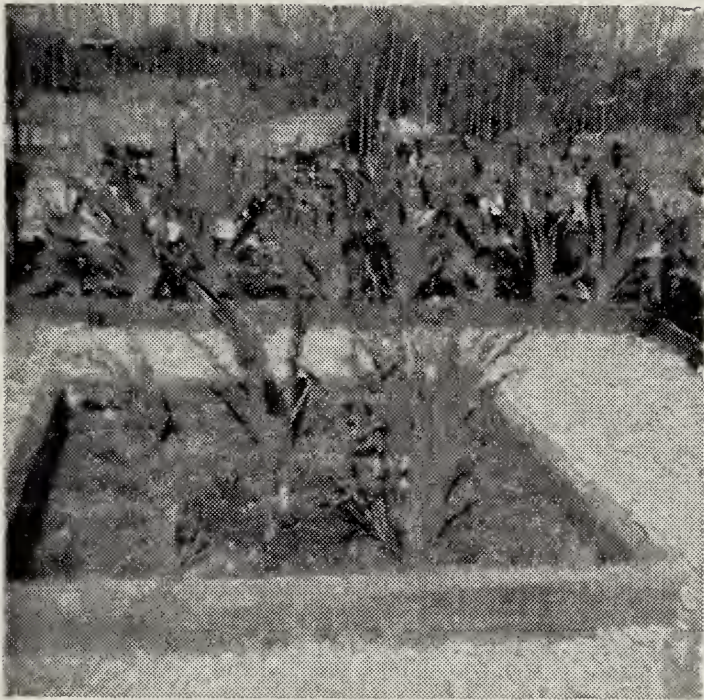
Lastly, we back-filled all around the outside with the dirt and bentonite mixture and watered it thoroughly. Then we turned on the sprinklers and adjusted them. Everything worked, and the water stayed in!

* * * * *

In May I took Will a heavenly dark-red spray of MADCAP, a Louisiana iris.

"That's the first bloom, friend."

"Well, what do you know?" he said.



Growing plants in bed.



Louisiana iris blooming in Tucson.

The Reinhardt Garden

Mattie Reinhardt

Two days after the convention closed, many of our new varieties and most of the guest irises and seedlings unfolded. We were most unhappy that the grand people of the convention could not see them. We had a solid bed of Plough's introductions, running the gamut from the daintiest, such as CHARM OF EDEN, with its delicate pink shoulders on white blooms, making it a truly ladies' flower, to PUNCHLINE, striking in its coloration of violet with a precise band of brown edging around falls that are wide and flaring. FLAMING STAR is a showy orange that lights up the garden. MARIACHI was another strong attention-getting combination of yellow standards and blended falls of garnet red, with blue blaze and banded in brown. AMBER ACCENT was an odd color combination of shaded gray and purple standards and very wide falls of yellow edged in blended tan. Plough's offering in the black category is his fine CHARCOAL, with large flowers that are wide petaled and of a deep dark violet-black. FLOWER POWER was a showy pink and purple bicolor, with four way branching. STRANGE MAGIC, a well-named French blue with an unusually prominent deeper blue beard, was a definite attention getter, with everyone crowding around it. QUETTA is a lovely plicata with delicate markings; and RIBBONS OF BLUE, another plicata with wide ruffled falls, white ground and flax blue edging, was most attractive. CORAL ICE, a lacy flaring coral pink, was like a party dress for the little ones.

There were some fine varieties by Carlson. One I especially liked was ORANGE ICING, very lacy and with flared falls, flower of medium size,

but most attractive in tangerine-orange. Another different bicolor was his CUBAN BELLE, with yellow standards and blue to violet falls; a narrow edge of buff gave a nice finishing touch. His FLAME AND SAND, a most interesting color that intrigued conventioners, is hard to describe, it being a blend of light orange and violet.

Varner's MISS ILLINI, a very clear ruffled yellow, and Gaskill's CANARY CADENCE, are equally wonderful garden specimens that really put sunshine in a garden; and Ramona Blodgett's APOLLO'S GIFT, the third member of the same parentage, was of equally high quality. Varner's AVIS, large and tall near reverse amoena, also is good. Two of his seedlings were outstanding, 460 a very ruffled beautiful yellow, and 5177, deep reddish violet. Gaskill's INTEGRITY was a very floriferous light pink, with extra fine branching with many buds.

The Schreiner introductions were of the usual high quality, and while not all of them bloomed for us, those that did were attractive garden subjects. HIGH LIFE and JOLIE both were fine plicatas. The broad petaled gold yellow with brown markings made TASTE OF HONEY an unusual variety. CRINKLED JOY was a very lacy lilac self.

Tucker's powerful varieties are hard to beat for vigor and size. His PAWNEE PRIDE and NIGHT HERON are just two examples; they were immense.

A seedling of Watkins, 63-22A, was a grand, stiffly flared and very wide petaled violet. Knopf's WHITE KING and CRAFTSMAN both were tall, large and very fine. TOMTEBO (L. Ney) was a lovely brown, tall, well branched, hardy, and with good bud count. We liked it very much.

A. Blodgett's GALA ROSE won the President's Cup. It is a fine, large rose-pink. R. Blodgett's INDIAN FRINGE is a good tan-brown. Rudolph's ORCHID BROCADE is a lovely wide orchid. Elkin's INDIGO IMP is a splendid candidate for the purple-black group. Knocke's K-121 is a wide hafted clear yellow with generous proportions. Goodrick's ENCHANTED SNOW is a smooth magnolia textured white sporting a rich yellow beard. It is large and wide petaled. WHITE HARMONY by Kuesel and CORAL ELEGANCE by Bledsoe were very fine. Zurbrigg's BLISS was beautiful, and IVORY LACE by R. Brown was another beauty. Ghio's NINA'S DELIGHT was a white, dainty looking, though of excellent substance—and such branching. Hartkoff's 65-1 was a pleasant surprise, a large icy blue, very fine indeed.

THE EDWARD MILLER GARDEN

Since bloom in Milwaukee was late this year, we are accepting the invitation of the editor to describe the named varieties which bloomed in the convention garden. The name of the hybridizer appears first, and the description of his varieties follow.

Babson: AD ASTRA. Very good addition to yellows; yellow standards; white spot on falls, bordered yellow.

Bledsoe: OLIVE LANGDON. Very nice pink.

Brown, R: JUNE SYMPHONY. Yellow laced standards; white falls edged yellow.

- Brown, A:** LEMON DREAM. A real dream.
- Gaskill:** INTEGRITY. Gaskill's best pink. ROBIN REDBREAST. Good but only one flower stalk this year.
- Ghio:** NINA'S DELIGHT. Very good light blue.
- Gibson:** LORNA LEE. Nice iris, good stalk, very good branching. WILD APACHE. Another beautiful Gibson plicata.
- Goodrick:** NORTHERN AIRE. Excellent blue; good performer.
- Haney:** GRAND SPECTATOR. Wonderful addition to the plicata family.
- Knopf:** YOKAYO. Light violet; heavy substance; yellow beard.
- Miller, K:** DESEREE. Speaks for itself; light clean violet; white beard. FLUTED PEARL. Big white self, very fluted and good substance. GRACEFUL LADY. Good performance; ruffled light violet with white spot on falls; ruffled light violet edge on falls; a real lady. LULLING DREAMS. A real dream. A little late, but gives a good performance. Mustard standards with white spot on falls, and mustard edging. MEL-CEANA. Buff self with violet beard. MIRACLE DREAM. Lovely gold color with brown flush.
- Nelson, J:** GAILY CLAD. Blue with wide heavy orange beard; very outstanding. SMART SET. Good bitone.
- Niswonger:** RASPBERRY RIPPLES. Very lovely; nice deep raspberry color.
- Olson:** HONOR GUARD. Lovely soft cream; yellow hafts and white beard.
- Pickard:** HEAVENS ABOVE. Very good, long-lasting white. Medium blue beard.
- Protzmann:** LEE'S DELIGHT. Plicata; a good bloomer.
- Rees:** ANGEL BRIGHT. Good bloomer and performer.
- Reinhardt:** RUSHING WATERS. Late, but very good performance.
- Saia:** RUFFLED SATIN. White with yellow shoulders. Little high in branching. Orange beard.
- Schreiners:** ANNABEL LEE. Pink blend; sharp orange beard. FIRE BALL. Very good red, brightest in the garden. GAY LIGHTS. Brown standards; sharp orange-brown falls. Floriferous and very outstanding. MATINATA. Profuse bloomer; outdoes itself in the garden. Dark violet with blue beard. NIGHTSIDE. An all good better black. ROYAL TOUCH. Yes, a very royal iris.
- Tucker:** BEWITCHED. Very good plicata. BROKER'S TIP. Good bitone. INDIAN HEAD. Lovely copper-brown; good branching. NIGHT HERON. Outstanding orange beard; heavy blue flush on falls. First to bloom and still in bloom on July 1. OKAW BLUTOP. Good blue; wonderful branching; white beard. OKAW GOLD. Very good gold color. PAWNEE PRIDE. A proud iris. It has everything good about it. ROSIE O'TEE. Another Mary Randall. SKYBALL. Very nice white plicata.
- Vallette.** CRINOLINE BELLE. Good stalk. DARK CLOUD. Another "Pretty Pansy." ROYAL REGELIA. Border. Nice eye-catcher; different.
- Varner.** AVIS. Excellent performance. HICKORY SMOKE. Outstanding as ever. MINN ILLINI. Good golden yellow. HATARI. Best pink; good bloomer; very showy.
- Wolff-Hildenbrandt:** NEBRASKA CENTENNIAL. White-gold inter-

mediate with flushed brown.

Wright: MISS RUFFLES. Light blue with darker flush. Good bloomer. Nice substance. An intermediate.

Yunker, Mrs. E: ORCHID ECHO. Pink amoena. Outstanding in every respect; a long bloomer.



Rena Crumpler in Blodgett Garden

MAID EN MILWAUKEE (Protzmann)

(Pictures by Kuesel)

FRED AND BARBARA WALTHER CUP

Donated by the Iris Society of New Jersey for the top iris of the Judges Choice List. Awarded for first time this year to Larry Gaulter for LAURIE. The second winner is Walt Luihn for DUSKY DANCER.

(Photo by Ira Wood)



THE BLODGETT GARDEN

Arthur Blodgett

The irises which particularly impressed me in this convention garden were:

ARCTIC FANCY (A. Brown '65). An intermediate similar to but lighter in color than **STEPPING OUT**. This iris has an unusually long season of bloom, still blooming with the latest of the tall. The finest all around intermediate I have seen.

MOLTEN GLASS (Marsh '69). Sent up seven bloomstalks all under 28", to qualify as BB. Very bright, vibrant deep orange, with red beard. Size and proportion in keeping with its height. Ample buds and branching comparing with the best of the tall bearded.

PEBBLES (Tucker '64). Another BB which had branching and buds along with the proper height. Light blue with deeper blue influence at haft. Of the tall bearded irises in our garden, we liked especially well:

APROPOS (Babson '64). Light orchid-lavender; very broad and full flower with good growth habits.

BRISTOL GEM (Leavitt '65). Stems always stand up straight and tall. Very broad falls. Deep medium blue.

DISTANT HILLS (Marsh '65). Deep blue which grows exhibition stalks.

FLAMING STAR (Plough '67). Deep brilliant orange. In our garden a large flower with a nice flare. Its bright color is sure to attract attention.

GOLDEN AUTUMN (Schreiners) Golden yellow with attractive brown shoulders.

GRACEFUL LADY (Miller '68). Tall, laced, light orchid-pink. Center of falls lighter. Excellent branching.

Marsh 66-93. Gold standards; rose red falls. A bicolor with good contrast, and attractive. Tall, wide branching, and many buds. Bloomed over a long period.

MISS ILLINI (Varner '66). Large deep yellow. Vigorous growth and increase. Ruffled and flared.

PINK HORIZON (Schreiners '68). Tall flamingo pink. Large flower of pleasing form.

RASPBERRY RUFFLES (Niswonger). Deep mulberry-rose; some lacing; flared and well branched. Good addition to this color range.

ROBIN REDBREAST (Gaskill '67). Similar in color but more reddish copper and a larger flower.

SILVER SHADOWS (Plough). Pale lavender with much lacing. Looked very good on a one-year plant.

SKY HARBOR (Marsh '67). Light blue. Ruffled, flared and good plant habits.

TOMTEBO (Ney '68). Vibrant brown or deep tan, with a blue dot at tip of orange beard. A much needed addition to this color class, and a fine one.

TUXEDO (Schreiners '65). Tall, large, blue-black; quite imposing. After the convention was over, it was interesting to compare **MISS ILLINI**, **CANARY CADENCE** and **APOLLO'S GIFT**. All three introductions are from the same parentage (Rainbow Gold X Illini Gold), and all three are outstanding yellows.

Exhibition Committee Report, 1969

Dr. Clarke Cosgrove, Chairman

WINTER OLYMPICS returned to reign as Queen in the greatest number of iris shows staged during 1969 and to repeat its 1967 performance by winning the Nelson Award for the second time. Last year's Nelson Award winner, STEPPING OUT, was Best of Show in seven shows again this year, but was topped by WINTER OLYMPICS as the top specimen in nine shows. Tying for third place, CELESTIAL SNOW and MOON RIVER were Queens of Show in three shows.

There was a slight decrease in the number of shows reported. One hundred and ten reports were filed for 1969, a decrease of six from 1968. The count of shows reported by Regions is as follows:

<i>Region</i>	<i>Shows</i>	<i>Region</i>	<i>Shows</i>
1	3	13	4
2	2	14	9
3	2	15	14
4	2	16	0
5	3	17	12
6	10	18	9
7	4	19	1
8	3	20	2
9	2	21	2
10	1	22	13
11	2	23	4
12	3	24	3
		TOTAL	110

Region 15 (Southern California and Arizona) again led the list with the greatest number of shows, but Region 22 (Arkansas and Oklahoma) was only one show behind, and Region 17 (Texas) climbed to third place by adding two more shows to the 1968 list.

The earliest show was staged in November and the latest in July. The longest run for a show was twelve days for the show staged by the San Diego-Imperial Counties Iris Society as part of the Southern California Exposition in Del Mar. Fresh specimens were entered every other day and the show was judged six times.

The Mio Irisarians of Mio, Michigan, celebrated their silver anniversary by staging their twenty-fifth consecutive annual iris show. They are to be congratulated for this record along with the Southern California Iris Society that staged their twenty-ninth and the Society for Louisiana Iris their thirtieth.

The movement to include a junior horticultural division in the show schedule has continued to gain momentum and this year there were three bronze medal certificate winners reported for the junior division. As the current forms for reporting shows do not include a place for recording the junior division winner it is possible that some winners were not reported.

AWARD WINNERS -- AIS SHOWS -- 1969

<i>Place of Show</i>	<i>Silver Medal</i>	<i>Bronze Medal</i>	<i>Variety</i>	<i>Best of Show Exhibitor</i>
REGION 1				
CONNECTICUT				
Waterbury	Jack Goett	Fred Gadd	MISS INDIANA	Jack Goett
MAINE				
Auburn	The Moors	The Mollicones	GINGERSNAP	The Moors
MASSACHUSETTS				
Worcester	Kenneth Stone	Waino Himottu	WINTER OLYMPICS	Kenneth Stone
REGION 2				
NEW YORK				
Baldwin, L. I.	William Peck	Harry Kuesel	DOROTHEA K. WILLIAMSON	Mrs. Robert Gay
Rochester	Mrs. Lynn Carmer	Albert F. de Groat Mark de Groat, Jr. Div.	STEPPING OUT	Mrs. James Gristwood
REGION 3				
PENNSYLVANIA				
Newton Square	Mrs. Grant Kegerise	Franklin E. Carr	SKYDIVA	Mrs. Grant Kegerise
Pittsburgh	Mr. John Yonski	Mrs. Stephen Molchan	BETH COREY	Mrs. Elton Hickman
REGION 4				
NORTH CAROLINA				
Charlotte	Mrs. Cecil Brooks	Jackie Furr	CELESTIAL SNOW	Martin H. Moore
VIRGINIA				
Roanoke	Mr. Fred Stephenson	Mrs. B. E. Crumpler	STEPPING OUT	Mrs. John McCoy
REGION 5				
GEORGIA				
Atlanta	Mrs. J. B. Wilson	M. B. Satterfield	ORCHID BROCADE	M. B. Satterfield
SOUTH CAROLINA				
Cayce	Mr. and Mrs. John M. MaDan	Mr. J. K. Smith	NEW FRONTIER	Mrs. George T. Plyler
Edgemoor	Mrs. Martha Kazenby	Rev. Everette Lineberger	WILD GINGER	Rev. Everette Lineberger

<i>Place of Show</i>	<i>Silver Medal</i>	<i>Bronze Medal</i>	<i>Variety</i>	<i>Best of Show Exhibitor</i>
REGION 6				
MICHIGAN				
Battle Creek	Mrs. Charles Katz	Mrs. Ronald Miller	WINTER OLYMPICS	Mrs. Forrest Samson
Flint	Darrell Rose	James Dimmitt	RUMBLING	
			THUNDER	Mrs. Jack Kruegar
Mio—25th	Evelyn Robarts	Gladys Goodrow	WINTER OLYMPICS	Gladys Goodrow
Anniversary				
OHIO				
Akron	Mr. Myron Beard	Mr. D. O. Rawdon	STEPPING OUT	Mr. Myron Beard
Columbus	Arthur Wuellner	Vincent Wiley	DESERT SONG	Mr. and Mrs. Howard D. Salisbury
Dayton	Mr. Earl Hall	Lee Eberhardt	BANG	Mrs. Virginia Bogrees
Mansfield	Harry Hanna	Mr. John Schaefer	GINGER	Harry Hanna
North Royalton	Mr. and Mrs. Anthony Willott	Miss Faye Griebing	<i>I. montana</i>	Mrs. James McClintock
Parma	Mr. and Mrs. James McClintock	Mr. Harry Hanna	GOOD HOPE	John Rusk
Springfield	Lee Eberhardt	Mr. and Mrs. Anthony Willott	WINTER OLYMPICS	Lee Eberhardt
		Mrs. Ann Woodruff		
REGION 7				
KENTUCKY				
Lexington	Dr. H. C. Mohr	Mrs. Robert Drake Sr.	STEPPING OUT	Henry B. Rabe
Louisville	Mrs. D. E. Parker	Mrs. Winnie Ketzner	ORGAN MUSIC	Mrs. C. Daniel Overholser
TENNESSEE				
Lewisburg	Mrs. Frank Tyree	Mrs. M. A. Luna	FIRST VIOLET	Mrs. Frank Tyree
Memphis	Mrs. R. G. Miller	Mr. Jake Scharff	WINTER OLYMPICS	Mrs. Reuben Sawyer
REGION 8				
MINNESOTA				
Bagley	Mrs. Frank Mershman	Mrs. Chester Welte	BLUE SAPPHIRE	Dr. Ruth Brune
Minneapolis	David B. Sindt	Riverdale Iris Gardens		Mangelsdorf
WISCONSIN				
Milwaukee	Mrs. Edward G. Miller	Frederick C. Jahnke	ROSY VEIL	Mrs. Royal O. Johnson
REGION 9				
ILLINOIS				
Hillside	Donovan Albers	Sherman Kindell	WINTER OLYMPICS	James E. Marsh
Hinsdale	Marvin Shoup	Muriel Milsted	BLUE FROST	Donovan Alberts

<i>Place of Show</i>	<i>Silver Medal</i>	<i>Bronze Medal</i>	<i>Variety</i>	<i>Best of Show</i>	<i>Exhibitor</i>
REGION 10					
LOUISIANA					
Lafayette	Mr. John Lewis	Mr. C. W. Arny	G. W. HOLLEYMAN	Mrs. E. P. Arceneaux	
REGION 11					
IDAHO					
Boise	Mrs. Ruby Lindsey	Mrs. E. E. Rutledge	RIPPLING WATERS	Mrs. E. E. Rutledge	
Jerome	Mrs. Al Kramer	Mrs. D. E. Finkelburg	ALTAR LIGHT	Mrs. Gary Aufterheide	
REGION 12					
UTAH					
Logan	Mrs. H. C. Hansen	Melissa Dixon, Jr. Div.	COUNTRY CREAM	Esther Tams	
Ogden	Ben Stanger	Vicky Freeman, Jr. Div.	COUNTRY GIRL	Ben Stanger	
Salt Lake City	Bion Tolman	Herb Spence	WHITE DRAPES	Bion Tolman	
REGION 13					
OREGON					
Portland	John D. Dorr	Violet Martin	CELESTIAL SNOW	Violet Martin	
WASHINGTON					
Richland	Mrs. Clyde T. Bromley	Deryl Johnson	VIOLET HILLS	Deryl Johnson	
Spokane	Mrs. Donald R. Sturdevant	Robert Burdett	MILESTONE	Mrs. Donald R. Sturdevant	
Tacoma	Frank Gropper	Charles Carper	ARIZONA SUNSET	Frank Gropper	
REGION 14					
NEVADA					
Henderson	Hazel Reta Miller	Evelyn Harris	WINTER OLYMPICS	Hazel Reta Miller	
Las Vegas	Mrs. Hugh A. Zug	Mrs. Carl Brown	COUNTRY SQUIRE	Mrs. Lawrence Olsen	
NORTHERN CALIFORNIA					
Concord	Duane and Joyce Meek	Louis and Marge Garventa	BROWN-EYED KATE	Carl and La Rue Boswell	
Modesto	Dan Miller	Mrs. Mac Holloway	JALLAH EFFENDI	Mrs. H. A. Dellis, Jr.	
Oakland	Tom Foster	Carl Boswell	SEASIDE	Tom Foster	
Redding	Albert Bryceson	Leo Clark	<i>I. susiana</i>	Helen Gaines	
Redding	Paul Maxim	Georgia Rogers	ONE DESIRE	Carl E. Miller	
Sacramento	Mrs. Robert L. Dunn	Mrs. E. V. Butler	MOONCREST	Kerrye Wheeler	
San Jose	Joseph Ghio	Mildred Scott	WHISPERING GLADE	Joseph Ghio	

<i>Place of Show</i>	<i>Silver Medal</i>	<i>Bronze Medal</i>	<i>Variety</i>	<i>Best of Show</i>	<i>Exhibitor</i>
REGION 15					
ARIZONA					
Tucson	Victor Verity	Mrs. Algerd N. Port	IMPERATOR		Mrs. Thomas Shannon
SOUTHERN CALIFORNIA					
Arcadia	Robert Hubley	Bob Brooks	RUTH'S LOVE		Mrs. P. V. Cooper
Arcadia	Bill Gunther	Doris Foster	<i>I. susiana</i>		John Holden
Arcadia	Bob Brooks	Barbara Serdynski	VESUVIUS		Bob Brooks
Bakersfield	Irene Poston	Lewis Henderson	GRAND SPECTATOR		Mae Green
Bakersfield	Mae Green	Lewis Henderson	PACIFIC PANORAMA		Opal Thurston
Del Mar	Bill Gunther	Virginia Innis			
El Monte	Mrs. Alex Rubey	Barbara Serdynski	LOIS CRAIG		Mrs. Alex Rubey
Escondido	Flossie M. Barker	Harriet de Gran	BELTON BEAUTY		Flossie M. Barker
Los Angeles	Barbara Serdynski	Clarke Cosgrove	SASHAY		Barbara Serdynski
Riverside	Mrs. Maebelle Nelson	Mrs. C. Bromberger	WINTER OLYMPICS		Mrs. I. V. Ashcroft
San Diego	Mr. Robert P. Hubley	Mrs. Thelma Carrington	RUTH'S LOVE		Mrs. Alberta Renger
San Diego	Mrs. Raymond Otto	W. J. Gunther	LAURIE		Mrs. N. R. Carrington
San Diego	W. J. Gunther	Mrs. William Van Dusen	CONFETTI SHOWERS		W. J. Gunther
REGION 17					
TEXAS					
Amarillo	Mrs. Harley King	Mrs. E. R. Glass	OYEZ		Mrs. C. C. Callerman
Arlington	C. J. Andrews	Mrs. Lillie Mae Sullivan	BLUE SAPPHIRE		C. J. Andrews
Belton	Mrs. Doyle Gray	Mrs. W. L. Lamb	EPIC		Mrs. Edith Dennis
Brownwood	Mrs. Charles Tulcus	Mrs. Edythe Burroughs	MOON RIVER		Mrs. Edythe Burroughs
Dallas	Mrs. Joseph B. Coker	Mr. Jimmie D. Williams	MOON RIVER		Mr. Marlin Carruth
Dallas	Mr. L. O. Jordan	Mrs. D. M. Liles	INDIGLOW		Mrs. Gladys Yoakum
El Paso	Mrs. John Welch	Mrs. Charles Calhoun	IRMA MELROSE		Theodore G. Harris
Fort Worth	Mrs. R. C. Blevins	Mrs. O. McCormack	MOON RIVER		Dr. C. P. Denman
Gainesville	Mrs. Joe M. Leonard Sr.	Mrs. Claude McCarty	JILBY		Mrs. Joe M. Leonard Sr.
Lubbock	Mrs. Edwin E. Patton, Jr.	Mrs. Charles E. Benson	CINNAMON MIST		Mrs. Charles E. Benson
New Braunfels	Dr. C. P. Denman	Rev. Barney Federwisch	VALHALLA		Dr. C. P. Denman
Waco	Mr. W. C. Haynes	Mr. W. I. Ross	SPRING VALLEY		Mrs. Alex R. Federwisch
REGION 18					
KANSAS					
Garden City	Edwin D. Gutentag	Herbert C. Graves	APERITIF		Floyd Jones

Hutchinson Parsons Wichita Wichita	Mrs. Max Snay Mr. William Chapman Carol Ramsey Fern Slater	Mrs. Glen Stout Mrs. Russell Morgan Roberta Torrey Carol Ramsey	VIOLET HARMONY VIOLET HARMONY ANDROMACHI TEA APRON	Mr. Franz John Mrs. G. C. Young Sam Street Mrs. C. R. Standard
MISSOURI Cape Girardeau Joplin Neosho Washington	Eugene Buckles Rev. Harold Ball Mrs. Homer Brower Mrs. Ruby Pehle	Truman Gladish Mrs. J. Donald Puett C. L. Fondoble Mrs. James Watters	LEORA KATE STEPPING OUT DOT AND DASH WAYWARD WIND	Eugene Buckles Mrs. Bob Crockett Mrs. Homer Brower Mrs. James Watters
REGION 19 NEW JERSEY New Brunswick	Mary Wais	Steve Zdepski	ALLOUTE	Mary Wais
REGION 20 COLORADO Denver Fort Morgan REGION 21 IOWA Davenport NEBRASKA Crete	Mr. Donald Roos Mrs. Dan Edelman	Col. R. B. Hargreaves Mrs. Russell Spotts	MIDNIGHT WALTZ CLIFFS OF DOVER	Mrs. Bethel Martin Mrs. Pete Galassini
REGION 22 ARKANSAS Hot Springs Little Rock	Henry Danielsen Mrs. Robert Tenopir	Ralph Kay Mrs. Edward Hesh	STEPPING OUT SYMPHONY	Frank Foley Mrs. Robert Tenopir
OKLAHOMA Edmond Enid Guthrie Lawton Oklahoma City Oklahoma City	Mrs. Joe Smith Mary Etna and Dennis Williams	Byron Grebe Helen Laessig	RIBBON ROUND TASTE OF HONEY	Mrs. L. L. Jester Hoyt and Edith Smith
Oklahoma City Quartz Mountain	Mrs. C. R. Mason Bill Frass Mrs. Bess Cornwell Mrs. Rex White Marvin Fletcher Marvin Fletcher	Mrs. M. D. Lindsey David Landes Mrs. W. A. Nichols Mrs. Ica Pierson Mrs. C. R. Mason Mrs. Dick Hensel Stanley Fletcher, Jr. Mrs. Joe Crawford Mrs. John Hayes	GAILY CLAD GLISTENING SNOW SLEIGHRIDE GINGER SING ALONG FLUTED HAVEN DAWN CANDLE STEPPING OUT	Bill Frass Mrs. Bess Cornwell Wilma Fansler Mrs. C. R. Mason Bill Frass Mrs. Joe Crawford Mrs. John Hayes

REGION 3
PENNSYLVANIA
Newton Square

Mrs. William T. Hirsch

REGION 4
NORTH CAROLINA
Charlotte

Mrs. George Ripley
Darby Acres Garden
Club

Pod and Pollen Gardens
B. J. Brown

VIRGINIA
Roanoke

Mrs. Roy Shepherd
Mrs. Roy Shepherd

Dr. Lloyd Zurbrigg

REGION 5
GEORGIA
Atlanta

Mrs. C. J. Lynch III

Byline April Showers, Lucia
McKay

SOUTH CAROLINA
Cayce

Mrs. D. B. Hallman
Judy Brooks, Jr. Div.
Miss Sharon Roddey

Mrs. W. D. Collins

Edgemoor

REGION 6

MICHIGAN
Battle Creek
Flint
Mio

Mr. Frank L. Johnson
Evelyn Roberts

Mr. Leland Welsh
Mrs. Jack Kruegar
Bobby Jenner

OHIO

Akron
Columbus
Dayton
Mansfield
North Royalton

64-12, Mr. Myron Beard
64-9, Fay Griebing
65-4, Mr. David Rawlins
267, Harry Hanna
6955, Miss Mary Louise
Dunderman

Mrs. Roger Strassburg
Miss Doris Emig
Mrs. Charles Brookey
Luella Kuhn
Mrs. James McClintock
Mrs. Paul Denchik
Miss Doris Emig
Mrs. Fred Schuster
Mrs. C. W. Conant
Mrs. James McClintock

Parma
Springfield

Mr. Joseph Batcha
Mrs. Wendell Smith

Mrs. Anthony Willott

New Horizons Garden Club

REGION 7

KENTUCKY
Lexington
Louisville

University of Kentucky
James E. Niehoff

Mrs. Estill Massey
Mrs. C. Daniel
Overholser
Mrs. Charles Kinberger

<i>Place of Show</i>	<i>Exhibition Certificate</i>	<i>Commercial or Educational Exhibit</i>	<i>Best Arrangement</i>	<i>Artistic Sweepstakes</i>
TENNESSEE Memphis		Whitehaven Garden Club	Mrs. F. S. Stone	
REGION 8 MINNESOTA Bagley Minneapolis WISCONSIN Milwaukee	Dancing Eyes, David B. Sindt 1, Adam Fikso 67-32, Mrs. Arthur Blodgett 69-34, Mrs. Arthur Blodgett		Mrs. Lulu Skare Mary Duvall Mrs. Melvin Bausch	Mrs. Elmer Walde Mrs. Melvin Bausch
REGION 9 ILLINOIS Hillside	67-91, Kames E. Marsh		Lillian Dushek	Lillian Dushek
REGION 10 LOUISIANA Lafayette	Mrs. Ira Nelson, C. W. Army	Mrs. Peggy Berg	Mrs. T. C. Wiggins, Sr.	Mrs. Milton Breaux
REGION 11 IDAHO Boise Jerome	BB-69-A, Mrs. Mel Suiter Painted Apache, Wilma Vallette		Mrs. E. E. Rutledge Mrs. Victor Nelson	Mrs. Victor Nelson
REGION 12 UTAH Logan Ogden Salt Lake City	C-49, Clela Hansen J-4-68, Selma Jensen T-9-68, Esther Tams 64-44-7A, Herb Spence 24A-64, Clifford Reynolds 75-64, Clifford Reynolds 62-45-2, George Mayberry 64-257-1, Bion Tolman		Mrs. Mable Decker Mrs. Roy L. Rider Andrew Burton, Jr. Div. Jon Burton, Men's Div.	Mrs. Roma Freeman Mrs. Mable Decker Mrs. Roy L. Rider Mrs. Roy L. Rider

REGION 13**OREGON**
Portland

69-01, John D. Dorr

Ron Beattie
Mr. and Mrs. McManigleDorothy Willis
Nita Kliese**WASHINGTON**Richland
Spokane
Tacoma645-4, Mrs. Clyde T. Bromley
6211-2, Dr. Frederick R. Judy
Lois, Mrs. Verna CookMrs. Clarence Webb
Mrs. Larkin Y. Powell
Mrs. W. R. HubbardMrs. Clarence Webb
Paul W. Harms
Mrs. W. R. Hubbard**REGION 14****NEVADA**
Henderson
Las Vegas**NORTHERN CALIFORNIA**Concord
Modesto
494-7B, Glenn F. Corlew
63-24L, Keith Keppel

Nevada Extension Service

Thelma Oldfield
Sally HarrisOakland
Redding
Redding
SacramentoJB 14, Joyce Meek
64-18, Alvin Arbuckle
H66-7H, Leo Clark
Ha 30-b, Virginia RossMelrose Gardens
Mrs. Fay Triplett
Mrs. Florence LongSally Dunn
Mrs. Douglas Morisette

Ruth Taylor

Frances Radcliffe
Peggy Ephland
Albert Bryceson
Mrs. Masao MaedaFrances Radcliffe
Ermah Ballard
Ermah Ballard

San Jose

66-20, Joseph Ghio
66-19, BeeBee Knopf
105, W. C. Carter

Fern Riggs

Marguerite Szekely

REGION 15**SOUTHERN CALIFORNIA**

Arcadia

Ha29a, John Holden
67-13-2, Doris Foster
67-20A, Lura Roach
T 63-41, Collie Terrell

James Bell

Doris Foster

Arcadia
Bakersfield
Del Mar
Escondido
RiversideMr. and Mrs. Collie Terrell
Pillely's Garden

Doris Foster

Sylvia Beck

Virginia Innis
Virginia Innis

San Diego

66-148x149, Mr. and Mrs.
Bernard Hamner
59-7-J, Harry A. Tate
68-1-AxR, Mrs. Pelham CooperThelma Carrington
Bill Gunther

Mrs. Gardner Kendall

Mrs. Gardner Kendall

<i>Place of Show</i>	<i>Exhibition Certificate</i>	<i>Commercial or Educational Exhibit</i>	<i>Best Arrangement</i>	<i>Artistic Sweepstakes</i>
San Diego	64X, Mr. and Mrs. B. Hamner 67-9, Mr. and Mrs. B. Hamner 68-22, Mrs. Lois Weaver 69-7, Mrs. Eleanor McCown	Mrs. Fern Pilley Mrs. Eleanor McCown Mr. W. J. Gunther	Mrs. Margaret Erickson	
REGION 17 TEXAS Amarillo Arlington Belton Brownwood	660-6, C. J. Andrews	Mrs. Harley King (2) Mrs. W. A. Messer Loras Iris Garden HRW Gardens Mrs. Edwin Poole Mrs. Ruth Wilson	Mrs. S. D. Nelson Mrs. Lillie Mae Sullivan	Mrs. Cecil Corbell
Dallas Dallas El Paso Fort Worth Gainesville Lubbock	67-6, Mr. L. O. Jordan C-67-1, Mrs. F. C. Courtney S-2, Mrs. Harlan Shields 1961-3, H. H. Henkelman 464, Steve Varner	Mr. Robert G. Demory Mrs. Robert V. Cates Activities, Inc.	Mrs. Charles K. Dean Mrs. Paul H. Horton Mrs. Edwin Murdoch Mrs. Roy White Mrs. David R. Smith Mrs. Bennidean Hammock	Mrs. Courtney Mrs. F. C. Courtney Mrs. John Welch Mrs. Roy White Mrs. Bennidean Hammock
New Braunsfels Waco	Royal Canyon, James R. Allen F7-63, Mr. W. I. Ross	Mr. W. I. Ross	Mrs. E. W. Howard	
REGION 18 KANSAS Garden City Hutchinson Parsons Wichita	B-148, Sam Street 4-64-2, Herbert C. Graves J66-D3-A, Robert Jeffries 63-32-D, Verna Mae Ewing		Mrs. J. O. Carter Mrs. Merle Dixon Mrs. Russell Morgan Laura Romick	Mrs. John Boyd Mrs. Bernard Taylor Martha Ramsey
Wichita	5-66, O. D. Niswonger 66-6, Eugene Buckles 10-66-103, Mrs. J. D. Puett	Schoonover Gardens El Dorado Iris Gardens	Mrs. W. E. Hendricks	Mrs. W. E. Hendricks
MISSOURI Cape Girardeau Joplin		Mrs. Edward Arnolds	Mr. J. Donald Puett	Mrs. W. S. Campbell

Neosho Washington		Mrs. Homer Brower Mrs. Alvin Kappelmann	Mrs. Homer Brower Mrs. Alvin Kappelmann
REGION 19 NEW JERSEY New Brunswick	M-69-10, Mel Leavitt	Mrs. Barbara Walther	Mrs. Raymond Karbobo Mrs. Raymond Karbobo
REGION 20 COLORADO Denver	Wedow's Iris Gardens Hurlburt's Iris Garden		
Fort Morgan	67-1, Mrs. Dan Edelman		Mrs. Harold Spotts Mrs. Harold Spotts
REGION 21 IOWA Davenport	Mr. and Mrs. R. Wiederaenders		Mrs. Helen Grell Mrs. Tim Bates, Novice
NEBRASKA Crete			Mrs. Joe Patak Mrs. Joe Patek Mrs. Ed Hesh
REGION 22 ARKANSAS Hot Springs Little Rock	W63B63, Mr. and Mrs. Leo Whitten	Mrs. Jesse Cox	Mrs. Jesse Cox Byron Grebe
OKLAHOMA Edmond	T66-3, Mollie Tallant	Mrs. C. R. Mason	Mrs. Everett Bryant Carol Fields, Jun. Div. Mrs. Harry Moore Mrs. Fred Acton Mrs. R. L. Gilbert Mrs. Byron Cook
Enid	67-32-A, Tom Munger Jr.		Mrs. Harry Spence
Guthrie	2-16, Mrs. Don Moon		Mrs. Glenn Male
Lawton	64-38, Hoke Ross		Mrs. Levy Parr
Oklahoma City	61-46-F, Dr. W. E. Jones 69-1-R, Dr. W. E. Jones		Mrs. Frances Humphrey
Oklahoma City	63-111, Nelda Venable	Alsup's Flowerland	Mrs. Harry Spence
Oklahoma City	67-43-3, John Humphrey		Mrs. Glenn Male
Quartz Mountain			Mrs. Levy Parr
Stillwater	67-143-1, John Humphrey		Mrs. D. Doyle

<i>Place of Show</i>	<i>Exhibition Certificate</i>	<i>Commercial or Educational Exhibit</i>	<i>Best Arrangement</i>	<i>Artistic Sweepstakes</i>
Tulsa Woodward	6315 A, Dr. M. L. Saddoris TC-50, Miss Theda Clark	Mrs. Al Spencer	Miss Eleanor Hill	Mrs. C. E. Kenney
REGION 23 NEW MEXICO Albuquerque	B661-2, Frank Bushey 63-11B, Ernest P. Wilson 0-58, Abe Rosenzweig GB1-65, Bernard Barnes	Mr. Robert Loulding Mrs. A. D. Kilbey Mrs. Earl Gould Mrs. T. E. Bertram Mrs. Cecil Eiffert	Mrs. Rufus Douglas	Mrs. Donald Wood Mrs. James Blackburn
Hobbs Roswell				
REGION 24 ALABAMA Florence	Vesper Shadows, Dr. Earl Fraser	Mrs. Frederick Jandebur	Mrs. J. A. Rollestone Jr.	Mrs. John McSwain
Guntersville Huntsville	68-1, Mrs. Erman Slater 65-17-1, Herbert Sherrrod	Mrs. Floyd Garner Mrs. Lester Fanning	Mrs. Mary Landau Mrs. L. E. Roberts	Mrs. Mary Landau Mrs. L. E. Roberts

ADVERTISING DIRECTORY

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Kerrye Wheeler, 13, has an admiring glance for her iris MOON-CREST (Rudolph '62), which was judged the queen of the show in the 19th annual iris show in Sacramento this year (Bee photo).



WEST COAST (Knopf '66)



NEW MOON (Sexton '68)

(Photos by Bryce Phenis)

REVISITING FLORENCE

We took advantage of the invitation to help judge again at Florence by leaving Chicago on April 24 and spending as much time in southern Italy as we could before going to Florence. But that is another story for another time.

On May 5 we reported for judging. The garden was showing some early bloom, and had been enlarged since we had been there some years ago. A pool had been added on the lower level, with a planting of Japanese irises.

We met many of our past friends and the members of the judges panel, which consisted of Dr. Charles Hall, president of B. I. S., Mr. F. Knowles

also of B. I. S., Dr Luigi Sani of Italy, Mrs Valeria Colimenga of Switzerland and me. The plants were in fine condition, and we expected full bloom in a few days; but a cold front moved in from the north, with dull, cloudy skies and intermittent rain, which made judging difficult. Instead of the usual three days for judging we continued for five, for buds were delayed in opening, and a few had to be held over for judging next year. There were sixty-five varieties in competition, and judging was by the process of elimination each day. As no stalks are allowed to be staked, some with large heavy flowers failed to stand up under the rain. It was necessary to finish judging by Friday noon, for the presentation of awards was to take place Saturday morning.

The ceremony of presenting the awards was elaborate and impressive, from the opening with the entry of the heralds in medieval costumes and the fanfare of trumpets to the presentation of the trophies by the mayor of Florence.



IRISH CHARMER WINS GOLD MEDAL AT FLORENCE

Cora May Pickard's IRISH CHARMER ('66) won the first place and the Gold Medal at the Florence contest in 1969. Pictured with a stalk of the winning iris are Hubert Fischer, one of the international board of judges. Pictured in the center is American General Consul in Italy, holding one of the plaques. Senator Piero Bargellini, former mayor of Florence, and a noted scholar and writer of art history, is at the right.

IRISH CHARMER won all first place votes on the first ballot.

The following day we were invited to attend the Festival of the Irises in San Polo, which is held by the Commercial Growers Association in collaboration with the Italian Iris Society. San Polo is located in the Chianti country, famous for its wine and olives. The drive winding among the hills presented ever changing vistas, and as we came near San Polo we saw the blue fields of *I. pallida* which are grown for perfumes and cosmetics. The town was decorated with bunches of iris stalks along the streets, and in doorways and on balconies, and woven into fences. Banners and flags flying gave the feeling of a real happy holiday. After the blessing of the iris in the church came what they called the informal popular feast, with abundant food. After several hours came the awarding of the "Golden Iris" (*Giaggiolo d'oro*), a reproduction of the old florin of the Florentine Republic of the fourteenth century. (Editor's note: The "Golden Iris" were

presented to Mr. Fischer, to Dr. Hall, president of B. I. S., and to Mr. Galletti, president of the Italian Iris Society.)

While in Florence, each day brought an invitation to visit an estate or cocktail party or dinner. We visited lovely gardens and beautiful villas, and we shall remember long the friendly, gracious hospitality. One interesting garden was located in the quaint old town of Collodi, considered to be of old Roman origin. It was here that Pinnochio was conceived, and he was much in evidence in the shops about the town.

We left home with the daffodils at peak bloom, and by direct ten hour flight from Milan to Chicago arrived in the home garden with the lilacs putting on a grand display. It was an interesting month.



BABBLING BROOK (Keppel '66)

PONDEROSA (Ghio '70)

(Photos by Bryce Phenis)

IN MEMORIAM

ROBERT S. CARNEY

Robert Carney was the tenth president of the American Iris Society. As a board member, as second vice president, as first vice president, as president and as immediate past president, he gave unstintingly of his time, his energy and his substance to the causes of irises and the American Iris Society. He traveled widely in behalf of both. He had an amazing grasp of the entire gamut of affairs of the Society, and perhaps his greatest contribution was the beginning of organizing Board actions under headings, and thus making the start toward a more closely knit and efficient operation. His little black book began to be the authority toward which the entire Board turned.

He was a leader and we all looked to him for direction. And to hundreds of members of the Society, he was a friend. To those of us who knew him well and loved him, there is an empty place, to be filled now only with the memories of the man and the role he played in our Society.

HENRY F. DU PONT

We learn that one of the charter members of the American Iris Society, Mr. Henry F. du Pont, of Winterthur, Delaware, passed away on April 11, 1969.

DENNIS GOGGIN

Mr. Dennis Goggin, of Hancock, Michigan, who would have been 85 on July 10, passed away on June 5, while attending the convention. He grew irises beautifully in the far north, and was engaged in a study of winter ground temperatures. He had a theory that the ground did not freeze because of the 275"-290" snowfall each winter.

DR. JESSE L. PICKARD

1890-1969

Dr. Pickard passed away quietly in his sleep May 19, after a full day of enjoying peak bloom and the many visitors who came to view the lovely irises at "Tooth Acres" in Benton, Illinois.

Flower growing was "Pick's" second work, for he had served as a dentist for fifty-four consecutive years. This Christian gentleman was a strong force in many community activities, always giving firm support while letting the others take the limelight. Thus it was with Cora May's hybridizing and growing irises, and her IRISH CHARMER'S winning the *I. Premio TB Florence* award in 1969 brought him real delight.

An AIS judge, this honest, sincere friend will be sorely missed, but fondly remembered.

D. Steve Varner

IDA ST. HELENS

A long time member of AIS, Ida St. Helens of Independence, Ks., passed away on August 1, at the age of ninety-three. She was preceded in death by her husband, but leaves four children, eight grandchildren and eight great-grandchildren.

She was an extremely dedicated irisarian, and had been actively hybridizing irises for over forty years. She was a member of B. I. S., the Society for Louisiana Irises, and the Southeast Kansas Iris Society, which she founded in 1954.

MINUTES OF BOARD OF DIRECTORS MEETING

Sheraton-Schroeder Hotel, Milwaukee, Wisconsin

June 3rd, 1969

The meeting was called to order at 5:00 p.m. by President Bledsoe with the following in attendance: First Vice President Nelson, Second Vice President Wall, Past Presidents Fischer and Rogers, Directors Browder, Cosgrove, Hamblen, Jacoby, McCaughey, Schreiner, Wood, Treasurer Ackerman and Executive Secretary Benson. Absent: Allen and Varnum. Mr. Glenn Corlew, RVP Region #14, Mr. Larry Harder, Youth Committee, Mr. C. Robert Minnick, Regional Test Gardens and Mrs. Barbara Serdynski, Publicity and Public Relations, attended the session.

The minutes of the meeting in Chicago, Illinois, November 2nd and 3rd, 1968, published in the January, 1969, Bulletin, were approved.

It was voted to increase the Fidelity Bond of Treasurer Ackerman from \$25,000 to \$40,000 effective January 1, 1970.

It was voted to approve an appropriation of \$500.00 over an extended period of time to Dr. Raabe, University of California, Berkeley, California, for a study of rust, with the stipulation that Dr. Raabe's report be furnished the Scientific Committee by October 15th of each year.

It was voted to revise AIS Guidelines for training of Judges, November, 1966, as revised April, 1968, and amended November, 1968 (Page 125, Minutes, AIS Bulletin, January, 1969) as follows:

"1. In the event that the RVP of any Region recommends to the board for the ensuing year incumbert judges and apprentice judges whose total exceeds the 15% quota, the board will not approve any addition to the regional list of judges subject to the 15% quota, until such time as the addition can be made within the 15% quota."

It was voted that the Executive Secretary dispatch 1969 ballots to all listed Apprentice Judges.

It was voted that Exhibition Judges be made eligible for Senior Exhibition Judgeships after 15 years of service.

The meeting adjourned at 7:30 p.m.

CLIFFORD W. BENSON
Executive Secretary

MINUTES OF JOINT RVP/DIRECTORS MEETING

Sheraton-Schroeder Hotel, Milwaukee, Wisconsin June 4th, 1969

The joint meeting of the RVPs and the Board of Directors was called to order at 8:00 a.m. by President Bledsoe. Present were First Vice President Nelson, Second Vice President Wall, Past Presidents Fischer and Rogers, Directors Browder, Cosgrove, Hamblen, Jacoby, McCaughey, Schreiner, Wood, Treasurer Ackerman and Executive Secretary Benson. Absent: Allen and Varnum.

Mr. Bledsoe welcomed and introduced the officers, Directors, Regional Vice Presidents or their alternates and guests. Regions 4, 13 and 16 were represented by alternates — Mrs. Rena Crumpler, Mrs. Roberta Snell and Mr. Bruce Richardson, respectively. Regions 10, 12, 21 and 24 were without representation. All other Regions were represented by their RVPs.

Representing AIS Sections were: Mrs. Ila Crawford, Spuria Iris Society; Mr. Lee Eberhardt and Mrs. Bee Warburton, Median Iris Society; Mrs. Eleanor Westmeyer, Society for Japanese Irises; Mrs. Charlotte Withers, Society for Siberian Irises and Mr. Lloyd Zurbrigg, Reblooming Iris Society.

Others in attendance were: Mrs. Barbara Serdynski, Public Relations, Mr. C. S. Cunningham, Assistant RVP, Region #7, Mr. Larry L. Harder, Youth Committee and Mr. C. Robert Minnick, Regional Test Gardens.

Reports of the following officers were presented:

Executive Secretary Benson reported on the present membership of the Society by Regions and States, the total being 7,106 as compared with 6,634 one year ago. Region No. 18 was reported as being the largest Region in membership. Region No. 4, second; Region No. 17, third; Region No. 6, fourth; Region No. 15, fifth; Regions No. 14 and No. 22 tied for sixth; Region No. 7, seventh; Region No. 24, eighth; Region No. 2, ninth and Region No. 13, tenth.

Treasurer Jay C. Ackerman presented a financial report for the six-month period ended March 31, 1969, including a statement of receipts and disbursements and a statement of assets showing the Society to be in sound financial condition.

Mrs. Ila Crowford, spokesman for affiliates and sections, revealed the following points of discussion as the result of a previously held meeting attended by Mrs. Eleanor Westmeyer, Society for Japanese Irises; Mr. Lloyd Zurbrigg, Reblooming Iris Society; Mrs. Charlotte Withers, Siberian Iris Society; Mr. Lee Eberhardt, Median Iris Society and Mrs. Doris Foster, Aril Iris Society:

1. It was suggested that all sectional society membership dues be forwarded to the AIS Secretary so that dues may be correlated with AIS membership records and dues payments.
2. It was suggested that the section membership application and dues card be printed in quantities sufficient for each calendar year only; further, that each sectional society be responsible for required changes in its dues structure.
3. It was suggested that the presidents of the sections be informed and be kept aware of mutual activities and problems that arise as well as keeping the AIS president and AIS section coordinator informed.
4. It was recommended that a circulating letter between section presidents and the AIS liaison officer be initiated.

Additional reports were made by:

Mr. William H. Peck — 1970 AIS Convention

Mr. Ira E. Wood — Anniversary Bulletin and Revision of RVP Handbook.

Dr. Hugo A. Wall — AIS Income and Expenses and Judge's Training Committee

Mr. J. Arthur Nelson — Bulletin Editor, Registrar, Co-chairman, Publications Committee and Chairman of Awards Committee

Mr. Clarke Cosgrove — Exhibitions Committee

Mrs. Helen McCaughey — Historian

Mr. Earl T. Browder — Membership Committee

Mrs. Barbara Serdynski — Public Relations and Publicity Committee

Mrs. James R. Hamblen — Registrations Committee

Mrs. Peggy B. Grey — Round Robins Committee (by Bledsoe)

Mr. Robert Schreiner — Slides Committee

Mr. B. LeRoy Davidson — Species Committee (by Richardson)

Mr. C. Robert Minnick — Regional Test Gardens

Mr. Larry L. Harder — Youth Committee

Following informal discussion of these reports, the meeting adjourned at 11:00 a.m.

CLIFFORD W. BENSON

Executive Secretary

MINUTES OF BOARD OF DIRECTORS MEETING

Sheraton-Schroeder Hotel, Milwaukee, Wisconsin

June 4th, 1969

The meeting was called to order at 11:30 a.m. by President Bledsoe with the following in attendance: First Vice President Nelson, Second Vice President Wall, Past Presidents Fischer and Rogers, Directors Browder, Cosgrove, Hamblen, Jacoby, McCaughey, Schreiner, Wood, Treasurer Ackerman and Executive Secretary Benson. Absent: Allen and Varnum. Mr. Larry L. Harder, Youth Committee and C. R. Minnick, RTG Chairman, attended this session.

Dr. Hugo A. Wall, Chairman, Special Committee on Finances and Structure and Procedures of the AIS, discussed and made the following recommendations:

1. That the annual publications of the *Registrations* and *Introductions* be made a separate document to be sold for \$1.00 rather than printed as a separate section of the Bulletin and sent to all AIS members.
2. That the AIS should arrange for preparing a bound set of all AIS Bulletins, to be kept in the Executive Secretary's office. It was voted that the AIS Bulletins in the editors office also be bound.
3. That the prices of all show supplies should be critically reviewed to determine whether they are sufficient to meet costs, including rapidly rising postal rates.
4. That the duties of the *Bulletin* Editor and the Executive Secretary should be more precisely stated — thus clarifying certain ambiguities that now exist.
5. That the secretarial allocations to the offices be reviewed and determined after a definite division of responsibilities of the offices has been arrived at.
6. That a fairly detailed budget (which may be condensed for presentation to the AIS Board) be prepared by the President and Treasurer after consultation with such persons as they determine, and that this budget be submitted to Board of Directors at its fall meeting.
7. That definite allocations be made to each of the AIS activities, and that the amounts allowed for certain activities in the past be increased.
8. That a greater emphasis be placed on a public relations program.
9. That a travel account be set up and that it be under the control of the president, the amount allowed for trips by officers to Regional meetings and training schools (which have been approved by the president) be the amount needed to supplement to amount which the Region itself may be reasonably expected to pay.

It was voted that Dr. Wall and his committee (other members: Browder, Wood, Ackerman) work out the details needed to implement the above proposals for the purpose of further discussion at the fall Board of Directors meeting.

It was voted that the AIS adopt into the Regional Test Garden Program, the procedure of allowing a panel of five judges whose basic responsibility will be to determine that eligible guest plants in the gardens are judged.

Mr. Earl Browder discussed Bright of America, Summersville, W. Va., manufacturer of high quality stationery, note paper, etc., with color horticultural re-

productions, and mentioned the possibility of AIS entering into an agreement in obtaining "notelets" with the iris motif. It was voted to appoint Mr. Browder the AIS liason officer for this project.

It was voted to publish 15,000 copies of WEIGSK, with eight pages in color; and to proceed with the printing of the Judges Handbook.

It was voted that effective immediately, a third member of a family desiring AIS membership can enjoy this privilege upon payment of \$1.00 per year.

It was voted that the fall Board meeting be held in Omaha, November 1 and 2.

The meeting adjourned at 1:00 p.m.

CLIFFORD W. BENSON
Executive Secretary



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All affiliates are entitled to one silver medal and one bronze medal, free of charge for their show. Order these at the time the report is sent to the Exhibition Chairman.

If there is a change in the name of the president of the club, be sure to notify Mr. Varnum, Mr. Benson and the editor of the *Bulletin* at once, so that the proper name and address can appear in the *Bulletin*, and that the *Bulletin* can be mailed to the proper address.

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